

Flora of Mongolia: annotated checklist of native vascular plants

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Abstract

In this study, we critically revised and updated the checklist of native vascular plants of Mongolia. The checklist comprises 3,041 native vascular plant taxa (2,835 species and 206 infraspecific species) from 653 genera and 111 families, including 7 lycophytes, 41 ferns, 21 gymnosperms, and 2,972 angiosperms. In the angiosperms, we identified the 14 families with the greatest species richness, ranging from 50 to 456 taxa. Species endemism is also noted here; 102 taxa are endemic to Mongolia, and 275 taxa are subendemic that co-occur in adjacent countries. Since 2014, a total of 14 taxa have been described new to

science based on morphological evidences. Moreover, five genera and 74 taxa were newly added to the flora of Mongolia. Based on our critical revisions, names of three families, 21 genera, and 230 species have been changed in comparison to the previous checklist, "Conspectus of the vascular plants of Mongolia" (2014).

Keywords

Checklist, flora of Mongolia, native taxa, vascular plants

Introduction

Mongolia is located in the mid-latitude (between 41°35'N–52°09'N and 87°44'E–119°56'E), between Russia and China, covering approximately 1.6 million km², roughly equivalent to the size of western and central Europe. The flora of Mongolia is comprised of native species of different origins including boreal, steppe, desert, and mountainous elements of vegetation (Hilbig 1995; Gunin et al. 1999). The country is divided into sixteen phytogeographical regions which have various vegetation types (Grubov and Yunatov 1952), namely, alpine steppe, forest, meadow steppe, typical steppe, desert steppe, and desert (Gunin et al. 1999; Baasanmunkh et al. 2021a). Mongolia has a significant amount of temperate grasslands and semi-arid desert (Gunin et al. 1999; Wesche et al. 2016), which cover about 80% of the country's area (Pfeiffer et al. 2020). Overall, the species richness of vascular plants in Mongolia is not particularly high compared to other countries in Asia (Du et al. 2020; Li et al. 2020; Wang et al. 2020). However, Mongolia has the world's largest intact grassland with respect to its biodiversity (Batsaikhan et al. 2014; Hurka et al. 2019), which has great importance for the preservation of native vascular plants.

A brief history of listing of the flora of Mongolia and recent taxonomic revisions

Historically, floristic studies have been very thoroughly conducted in this country, although recent updates are continuously being made. The first checklist of vascular plants included 1,897 species belonging to 555 genera and 97 families (Grubov 1955). Then, Grubov (1982) updated the checklist of vascular plants, which included 2,239 taxa from 599 genera and 103 families, with an identification key and information on their regional distribution and representative habitats. Later, Gubanov (1996) published a checklist with 2,823 higher plant species from 662 genera and 128 families, including notes on their regional distribution. More recently, Urgamal et al. (2014) updated the families of vascular flora according to APG III, with a total of 3,127 taxa that belong to 683 genera and 112 families. Since 2009, nine volumes with selected families have been published by Mongolian botanists, including Cyperaceae (Nyambayar 2009a), Apiaceae to Cornaceae (Urgamal 2009), Huperziaceae to Ephedraceae (Ulziikhutag et al. 2015), Asteraceae (Dariimaa 2014, 2021; Dariimaa and Saruul 2017), Ceratophyllaceae to Zygophyllaceae (Urgamal et al. 2020), Amaranthaceae s.l. (incl. Chenopodiaceae) (Tungalag 2020), Nymphaeaceae to Asphodelaceae (Urgamal et al. 2021).

Additionally, several families and genera have been revised in recent years. For example, a new checklist of the Brassicaceae family, the fifth-largest family in the country, was provided by German (2015). Taxonomic notes and checklists of *Aquilegia* L., *Stipa* L., and *Primula* L. were compiled by Erst et al. (2016), Zhao et al. (2019) and Baasanmunkh et al. (2020a), respectively. Recently, Troshkina (2021) revised and updated Geraniaceae in Mongolia. Baasanmunkh et al. (2021b) compiled a checklist of Orchidaceae, which included notes on their species richness and conservation status. The families Menyanthaceae and Nymphaeaceae were also revised by Baasanmunkh et al. (2022a). Additionally, some thorough regional floristic works were published: for the Khangai (Biazrov et al. 1989) and the Dzungarian Gobi regions (Baasanmunkh et al. 2021a). Moreover, an updated checklist of endemic plant species was recently provided by Baasanmunkh et al. (2021c), which comprises 102 taxa (95 species, 5 subspecies, and 2 varieties) from 43 genera and 19 families in the flora of Mongolia.

New additions to the flora of Mongolia

Since Urgamal et al. (2014), 13 new species and one infraspecific taxon from Mongolia have been described as new to science (Nobis 2014; Erst et al. 2015, 2016; Kechaykin and Kutsev 2015; Yurtseva et al. 2016; Alexeeva 2018; Gundegmaa and Kechaykin 2018; Ovczinnikova 2019a, 2020; Pyak and Pyak 2019; Zhao et al. 2019; He et al. 2020; Pyak et al. 2020). Many new records of vascular plants have also been reported (Nobis et al. 2014, 2019a; Doronkin et al. 2015; Urgamal et al. 2016, 2019; Baasanmunkh et al. 2019a, b, c, 2020a, b, 2021b, d; Bazarragchaa et al. 2019; Erst et al. 2019; Ovczinnikova 2019b; Knyazev 2020; Shiga et al. 2020; Yano et al. 2021), including five genera new to the country, i.e. *Matthiola* W.T.Aiton, Brassicaceae (German 2015), Onoclea L., Onocleaceae (Doronkin et al. 2015), Aldrovanda L., Droseraceae (Shiga et al. 2020), *Hydrilla* L., Hydrocharitaceae (Shiga et al. 2020), and *Arctium* L., Asteraceae (Javzandolgor et al. 2021). Additionally, some genera previously listed by Urgamal et al. (2014) were omitted from Mongolian flora based on recent studies. In particular, the genus *Epipactis* Zinn. (Orchidaceae), for example, had two species that have been proven absent in the country due to the inaccurate location written on the herbarium specimens (Baasanmunkh et al. 2021b). On the other hand, some genera were not listed in Urgamal et al. (2014); for example, the genus *Phyllodoce* Salisb. (Ericaceae) was found in northern Mongolia by Oyunmaa and de Priest (2011). Furthermore, representatives of some genera, which are listed in the flora of Mongolia (Gubanov 1996; Urgamal et al. 2014), have been revised in recent studies (Podlech and Zarre 2013; Sukhorukov et al. 2013, 2019; Wang et al. 2014; Global Carex Group 2015; Duan et al. 2016; Drew et al. 2017; Kosachev 2017; Moore and Dillenberger 2017; Nosov et al. 2017; Pimenov 2017; Wiegleb et al. 2017; Boltenkov 2018; Gillespie et al. 2018; Madhani et al. 2018; Sinitsyna et al. 2018; Zhang et al. 2018; Barberá et al. 2019, 2020; Nobis et al. 2019b; Sramkó et al. 2019; Akan et al. 2020; Esput 2020; Friesen et al. 2020; Murakami et al. 2020; Nesom 2020; Ren et al. 2020; Zaika et al. 2020; Al-Shehbaz 2021; Al-Shehbaz et al. 2021; Liu et al. 2021).

Necessity to update the list of flora of Mongolia

In 2016, the orders and families of flowering plants were updated by the APG IV (2016). Similarly, a new classification of ferns and lycophytes was provided for the first time (PPG I 2016). Given the recent updates to the international plant classification system, as well as a number of recent publications that identify new species and records and their distribution in Mongolia, there is a pressing need to revise and provide an updated list of the floristic diversity. Therefore, our study aims to present a thoroughly revised checklist of Mongolian native vascular flora that comprises the up-to-date names of all species, genera, and families, by conducting comparisons to the latest checklist, Conspectus of Vascular Plants of Mongolia by Urgamal et al. (2014) and earlier studies by Grubov (1982) and Gubanov (1996).

Materials and methods

The systematic order and taxonomic circumscription of the families is based on the following classifications: Ferns and Fern Allies by PPG I (2016), Gymnosperms by Christenhusz et al. (2011), and Angiosperms by APG IV (2016). The names of accepted genera and species mostly follow Govaerts et al. (2021), which is currently maintained by Plants of the World Online (POWO 2021). Additionally, we reference recently published taxonomic revisions of certain families and genera. The authorship of species, genera and families is given after the International Plant Names Index (IPNI 2021); each species is provided with the author and respective publication as a reference. The name changes and most common synonyms, compared to the previous checklist, are also provided. Species endemism is given after Baasanmunkh et al. (2021c). Sub-endemic species are those that have also been found in at least one other country outside Mongolia, such as China, Kazakhstan, or Russia. For each species, we examined representative occurrence records based on the Global Biodiversity Information Facility (GBIF 2021, https://www.gbif.org/). We also compiled the phytogeographical regional distribution of all species, because species distribution is important information for species identification. The main herbaria for Mongolian flora (ALTB, LE, MW, MHA, NS, NSK, OSBU, TK, UBA, and UBU; acronyms follow Thiers 2021), Virtual Guide to the Flora of Mongolia (Rilke et al. 2012; Zemmrich et al. 2013; https://floragreif.uni-greifswald.de/floragreif/), and all literature data for the species' regional distribution, have been checked and studied. The regional distribution of the taxa mostly follows Gubanov (1996), Urgamal et al. (2014), German (2015), and Baasanmunkh et al. (2021a). In addition to these sources, we used a revision of Baasanmunkh et al. (2022b), where numerous species were added or excluded from some phytogeographical regions. Lastly, the checklist comprises only native species, thus non-native taxa are not included and should be adressed in a future publication.

Results

The current checklist comprises 3,042 native vascular plant taxa (including 2,891 species, 116 subspecies, 29 varieties, and 12 nothospecies), belonging to 653 genera and 111 families (Table 1, Fig. 1). The updated checklist is divided into four major taxonomic groups: lycophytes (2 families and 4 genera), ferns and fern allies (12 families and 17 genera), gymnosperms (3 families and 6 genera), and angiosperms (94 families and 626 genera) (see Table 1 for detailed numbers of taxa). Among these, angiosperms comprise 2,979 taxa, which constitute 97% of Mongolian flora (Table 1). We cross-checked the occurrence of each taxon using GBIF (2021), which includes occurrence data for 2,249 taxa (73% of Mongolian flora).

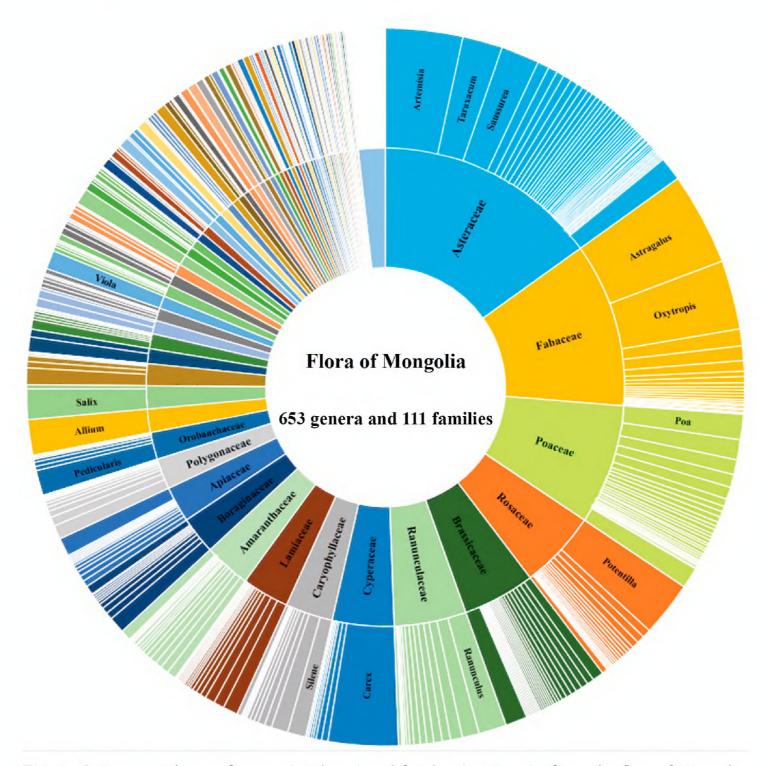


Figure 1. Species richness of genera (≥ 24 taxa) and families (≥ 57 taxa) of vascular flora of Mongolia. The names of only the most species-rich genera and families are shown.

Major taxonomic groups	Family	Genus	Taxon
Lycophytes	2	4	7
Ferns and fern allies	12	17	41
Gymnosperms	3	6	21
Angiosperms	94	627	2,972
Total	111	653	3,041

Table 1. Number of native Mongolia vascular plant taxa in each taxonomic group.

Table 2. The species richness of the total, endemic, and sub-endemic vascular plants of each phytogeographical region of Mongolia.

Region	Name of the phytogeographical regions	Taxon	Endemic	Sub-endemic
number				
1	Khuvsgul	1,054	7	63
2	Khentei	1,236	6	48
3	Khangai	1,514	27	87
4	Mongolian Dauria	1,198	6	54
5	Foothills of Great Khyangan	793	3	24
6	Khovd	1,011	10	68
7	Mongolian Altai	over 1400	47	114
8	Middle Khalkh	777	4	49
9	East Mongolia	952	3	50
10	Depression of Great Lakes	882	16	60
11	Valley of Lakes	466	5	39
12	East Gobi	462	2	57
13	Gobi Altai	865	16	76
14	Dzungarian Gobi	913	20	58
15	Transaltai Gobi	356	8	40
16	Alashan Gobi	262	2	43

There are 14 families with a high species richness (≥ 9 genera and ≥ 57 taxa): Asteraceae (85 genera and 456 taxa), Fabaceae (24 and 328), Poaceae (58 and 229), Rosaceae (28 and 168), Ranunculaceae (20 and 156), Brassicaceae (51 and 138), Cyperaceae (10 and 130), Lamiaceae (22 and 103), Amaranthaceae (30 and 94), Caryophyllaceae (20 and 97), Boraginaceae (24 and 78), Apiaceae (36 and 66), Polygonaceae (11 and 63), and Orobanchaceae (9 and 57) (Fig. 1). The remaining 97 families comprise a smaller set of taxa. At the genus level, 14 genera represent a high species richness (≥ 24 taxa): *Astragalus* L. (127 taxa), *Artemisia* L. (103), *Carex* L. (99) *Oxytropis* DC. (97), *Potentilla* L. (75), *Saussurea* DC. (55), *Taraxacum* F.H.Wigg. (53), *Allium* L. (50), *Salix* L. (42), *Ranunculus* L. (41), *Pedicularis* L. (36), *Poa* L. (28), *Viola* L. (27), and *Silene* L. (24) which is shown in Fig. 1.

In this study, a total of 275 sub-endemic taxa are provided which account for 9% of the total species of flora of the country. Among these, Fabaceae (74 taxa) show the highest number of sub-endemic taxa along with Asteraceae (60 taxa), Brassicaceae (23 taxa), Poaceae (18 taxa), and Amaranthaceae (9 taxa). The highest number of sub-endemic taxa were found in the Mongolian Altai (114 taxa) followed by Khangai (87 taxa), Gobi-Altai (76 taxa), Khovd (68 taxa), Khuvsgul (63 taxa), and the Depression of Great Lakes (60 taxa). The remaining ten regions have between 24 and 58 sub-endemic taxa (Table 2).

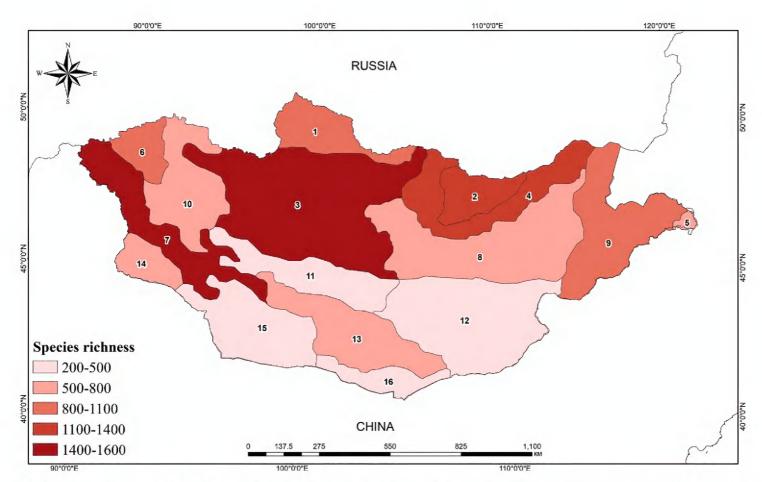


Figure 2. The species richness of native vascular plants of each phytogeographical region in Mongolia (I Khuvsgul 2 Khentei 3 Khangai 4 Mongolian Dauria 5 Foothills of Great Khyangan 6 Khovd 7 Mongolian Altai 8 Middle Khalkh 9 East Mongolia I 0 Depression of Great Lakes I I Valley of Lakes I 2 East Gobi I 3 Gobi Altai I 4 Dzungarian Gobi I 5 Transaltai Gobi I 6 Alashan Gobi).

Based on the species distribution across the 16 phytogeographical regions, six regions with high species richness (over 1,000 taxa) were identified: the Mongolian Altai (more than 1,400 taxa), Khangai (1,514 taxa), Khentei (1,236 taxa), Mongolian Dauria (1,118 taxa), Khuvsgul (1,054 taxa), and Khovd (1,011 taxa). The remaining ten regions have between 262 and 952 taxa (Table 2, Fig. 2).

In this study, we primarily excluded non-native species, including archeophytes that were listed in the previous checklist of Mongolia by Urgamal et al. (2014). As a result, 59 plant taxa found in Mongolia are considered non-native, including the families Cannabaceae (*Cannabis sativa* L.) and Portulacaceae (*Portulaca oleracea* L.). Several taxa were found to be archeophytes, which were introduced in "ancient" times and became naturalized as part of the native flora (a full list is given in Table 3).

Discussion

We revised the checklist of Mongolian vascular plants provided by Urgamal et al. (2014), which included 3,127 taxa, belonging to 683 genera and 112 families. Because the list comprised both native and non-native taxa, we first sorted non-native taxa out to make our study comparable. There were 3,069 native taxa from 682 genera and 110 families listed by Urgamal et al (2014) and the current checklist has been shortened and comprises 3,041 native vascular plant taxa from 653 genera and 111 families. Since

Table 3. List of non-native taxa that were included in the previous checklist of Mongolian flora but are excluded from this checklist.

No	Taxon name	No	Taxon name
	Amaranthaceae		Fabaceae
1	Amaranthus albus L.	30	Lathyrus oleraceus Lam.
2	Amaranthus blitoides S.Watson	31	Lathyrus sativus L.
3	Amaranthus cruentus L.	32	Lotus corniculatus L.
4	Amaranthus retroflexus L.	33	Medicago sativa L.
	Apiaceae	34	Melilotus albus Medik.
5	Anethum graveolens L.	35	Ornithopus perpusillus L.
6	Eryngium planum L.	36	Trigonella caerulea (L.) Ser.
7	Pastinaca sativa L.	37	Vicia angustifolia L.
	Asteraceae	38	Vicia faba L.
8	Cichorium intybus L.	39	Vicia sativa L.
9	Sonchus oleraceus L.	40	Vicia sepium L.
10	Xanthium orientale L.		Malvaceae
11	Xanthium strumarium L.	41	Hibiscus trionum L.
	Brassicaceae		Plantaginaceae
12	Berteroa incana (L.) DC.	42	Veronica peregrina L.
13	Brassica campestris L.		Poaceae
14	Brassica juncea (L.) Czern.	43	Avena fatua L.
15	Bunias orientalis L.	44	Avena sativa L.
16	Camelina caucasica (Sinskaya) Vassilcz.	45	Cenchrus americanus (L.) Morrone
17	Camelina sativa (L.) Crantz	46	Chloris virgata Sw.
18	Eruca sativa Mill.	47	Dactylis glomerata L.
19	Guenthera persica (Boiss. & Hohen.) D.A.German	48	Hordeum aegiceras Royle ex Walp.
20	Neslia paniculata (L.) Desv.	49	Hordeum distichon L.
21	Raphanus raphanistrum L.	50	Hordeum vulgare L.
22	Sinapis arvensis L.	51	Panicum miliaceum L.
23	Sisymbrium altissimum L.	52	Panicum miliaceum subsp. ruderale (Kitag.) Tzvelev
24	Sisymbrium volgense M.Bieb.	53	Secale cereale L.
	Cannabaceae	54	Setaria pumila Roem. & Schult.
25	Cannabis sativa L.	55	Setaria viridis (L.) P.Beauv.
	Caryophyllaceae	56	Triticum aestivum L.
26	Agrostemma githago L.		Polygonaceae
27	Gypsophila vaccaria (L.) Sm.	57	Fagopyrum esculentum Moench
28	Silene banksia (Meerb.) Mabb.	58	Fagopyrum tataricum (L.) Gaertn.
	Convolvulaceae		Portulacaceae
29	Calystegia silvatica (Kit.) Griseb.	59	Portulaca oleracea L.

Grubov (1955) provided the first checklist, more than 1,150 species have been added to the flora of Mongolia. In this study, the family Brassicaceae is based upon the work of German (2015), who recognized 141 species from 59 genera which significantly differs from the 160 species and 61 genera provided by Urgamal et al. (2014); this is because of misidentification of species and records from outside Mongolia being included in the latter publication. Since Urgamal et al. (2014), 14 taxa have been described as new to science based on morphological evidence, the majority of which are from Boraginaceae (Suppl. material 1: Appendix 1). Furthermore, 79 taxa have recently been added to the flora of Mongolia (Suppl. material 1: Appendix 1). On the other hand, many taxa are

synonymized and/or the names and status of numerous taxa were changed based on our critical revisions (list of the synonymized taxa is provided Suppl. material 2: Appendix 2). In particular, accepted names of three families, 21 genera, and 232 taxa have been changed/synonymized. Moreover, 21 taxa listed in the Urgamal et al (2014) were absent from Mongolia based on our extensive research which is given in Suppl. material 2: Appendix 2 (Pimenov 2017; Ovczinnikova 2019a; Nesom 2020; Baasanmunkh et al. 2021b, 2022a). Due to this high number of synonymization, even after dozens of new species have been discovered in Mongolian flora, change in absolute species numbers appeared to be minor.

Previous checklists of vascular plants in Mongolia (Gubanov 1996; Urgamal et al. 2014), listed both native and non-native taxa; however, there were no specific remarks for non-native taxa. Recently, many researchers have published checklists of non-native plants, mainly in Europe and East Asia, for example, concerning China (Xu et al. 2012), Italy (Galasso et al. 2018), South Korea (Korea National Arboretum 2021) as well as the Russian Far East and Siberia (Ebel et al. 2014; Vinogradova et al. 2020). These works aim to increas awareness about invasive species and strengthen their biosecurity regulations. This level of detail is important because invasions have complex and often immense long-term direct and indirect effects on native natural communities (Pagad et al. 2018; van Kleunen et al. 2019; Pyšek et al. 2020). In many Central Asian countries, there is no separate checklist for non-native plants species (Sennikov and Lazkov 2021). The first checklist of alien species was recently published for Kyrgyzstan by Sennikov et al. (2021). In Mongolia, approximately 35 non-native plants taxa are recognized in GBIF (Munkhnast et al. 2020), but this list has not critically revised all non-native plants species of the country. In this study, we primarily excluded non-native species that were listed in the previous checklist of Mongolia, including two families Cannabaceae (Cannabis sativa L.) and Portulacaceae (Portulaca oleracea L.) and 57 other taxa (Table 3).

Mongolia has a relative small number of endemic vascular plants, with 102 taxa belonging to 43 genera and 19 families, accounting for only about 3% of the country's total flora (Baasanmunkh et al. 2021c). Notably, the Mongolian Altai and Khangai regions harbor over 70% of the total endemics and sub-endemics of Mongolia, which reflects their high species richness (Fig. 2; Table 2). This could be due to the diverse habitats along the Altai mountains and the large expanse of forest and mountain-steppe in both regions. Regional distribution of new species, new records, and recently revised genera and families, were provided based on literature. It is important to highlight that the study does not entirely revise regional distribution of each taxon. Nonetheless, we have been working on the grid distribution map of vascular plants (see Baasanmunkh et al. 2021b, 2022a) since 2020 based on critical revision of herbarium specimens, literature, and our own field observation data.

Both of the online databases are allowing researchers to collaborate and revise Mongolian taxa more readily and will continue to improve the documentation of Mongolia's flora. To date, a total of 2,249 taxa (ca. 73% of the flora) have been deposited in the database of GBIF (2021). Furthermore, the data for 1,249 species (including herbarium specimens and/or images of living plants) are at least partially available in the database of the Virtual Guide to the Flora of Mongolia (Rilke et al.

2012; Zemmrich et al. 2013; https://floragreif.uni-greifswald.de/floragreif/). Moreover, approximately 19,300 images of 1,780 taxa have been observed as part of citizen science contributions to the "Flora of Mongolia" project on the iNaturalist platform (https://www.inaturalist.org/projects/flora-of-mongolia?tab=observations), which was established on January 2019.

In this study, we checked more than 70 works published since 2013 that have revised the flora of Mongolia, and provided respective references for each species in our checklist. We reviewed the species status of all vascular flora of Mongolia and made critical changes by adding, synonymizing, and excluding taxa; this work resulted in 265 fewer taxa compared to Urgamal et al. (2014). We believe that our revised checklist serves as an essential background and reference not only for scientists and students, but also for local government administrations and protected areas, for the conservation of Mongolian flora. Having an updated checklist allows researchers and communities to monitor plants as climate and land use changes, and population size and herding pressures increase. We recommend more research be conducted on regional flora, as well as comprehensive revisions of species distribution based on herbarium collections for phytogeographical regions and taxonomic revision of doubtful taxa.

Annotated checklist of native vascular flora in Mongolia.

The families in the checklist are alphabetically ordered and, within them, the genera, species, and subspecies are alphabetically listed. The currently accepted names are highlighted in bold italics. The most common synonyms (previously used in Urgamal et al. (2014)) and the species' distribution in phytogeographical regions are provided here. Symbols used in the checklist include endemic [E] and sub-endemic [SE].

I Lycophytes

1. Lycopodiaceae P.Beauv. (3 genera and 5 species)	
Diphasiastrum alpinum (L.) Holub	[1, 2]
Diphasiastrum complanatum (L.) Holub	[1]
Huperzia selago (L.) Bernh.	[1, 2]
Lycopodium annotinum L.	[1, 2]
Lycopodium clavatum L.	[2]
2. Selaginellaceae Willk. (1 genus and 2 species)	
Selaginella borealis (Kaulf.) Spring	[1, 3, 4, 8]

II Ferns and fern allies

Selaginella sanguinolenta (L.) Spring

3. Aspleniaceae Newman (1 genus and 5 species)	
Asplenium altajense (Kom.) Grubov	[1, 3, 4, 7, 10, 13]
Asplenium ruprechtii Sa.Kurata	[2, 3, 4]

[1, 2, 3, 4, 8]

Asplenium ruta-muraria L.	[7, 14]
Asplenium septentrionale (L.) Hoffm. Asplenium yunnanense Franch.	[7, 8, 10, 14] [7, 13]
21spienium yunnumense Ttanien.	[/, 13]
4. Athyriaceae Alston (2 genera and 4 species)	
Athyrium filix-femina (L.) Roth	[1–5]
Athyrium monomachi Kom.	[2, 3, 4, 5]
Athyrium sinense Rupr.	[3, 5, 9]
Diplazium sibiricum (Turcz.) Sa.Kurata	[1–5]
5. Cystopteridaceae Shmakov (2 genera and 4 species)	
Cystopteris fragilis (L.) Bernh.	[1–10, 13, 14, 15]
Cystopteris sudetica A.Braun & Milde	[2]
Gymnocarpium dryopteris Newman	[2, 4]
Gymnocarpium jessoense (Koidz.) Koidz.	[1, 2, 3, 4, 5, 8]
6. Dennstaedtiaceae Losty (1 genus and 1 species)	
Pteridium aquilinum (L.) Kuhn	[2, 3, 4, 5]
7. Dryopteridaceae Herter (1 genus and 3 species)	
Dryopteris dilatata (Hoffm.) A.Gray	[2, 5]
Dryopteris expansa (C.Presl) Fraser-Jenk. & Jermy	[2, 5]
Dryopteris fragrans (L.) Schott	[2, 3, 4, 5, 7, 10]
8. Equisetaceae Michx. (1 genus and 9 species)	
Equisetum arvense L.	[1-10, 14]
Equisetum fluviatile L.	[1–10, 14]
Equisetum hyemale L.	[3, 4, 5]
Equisetum palustre L.	[1-10, 14]
Equisetum pratense Ehrh.	[1-7, 9, 10]
Equisetum ramosissimum Desf.	[14]
Equisetum scirpoides Michx.	[1, 2, 3, 4, 6]
Equisetum sylvaticum L.	[1-5, 8, 9]
Equisetum variegatum Schleich.	[1,4]
9. Onocleaceae Pic.Serm. (2 genera and 2 species)	
Matteuccia struthiopteris (L.) Tod.	[2, 4]
Onoclea sensibilis L.	[2]
10. Ophioglossaceae Martinov (1 genus and 2 species)	
Botrychium lanceolatum (Gmel.) Ångstr.	[3]
Botrychium lunaria (L.) Sw.	[1–7, 9]

11 Polymodiagona I Drasl 87 C Drasl (2 gapara and 2 specie	(0.0
11. Polypodiaceae J.Presl. & C.Presl (2 genera and 2 specie <i>Lepisorus clathratus</i> Ching	[13]
Polypodium virginianum L.	[1-5, 8]
Totypoutum virginiumum L.	[1-), 0]
12. Pteridaceae E.D.M.Kirchn. (2 genera and 2 species)	
Cheilanthes argentea (S.G.Gmel.) Kunze	[1–9, 12, 13]
Cryptogramma stelleri (S.G.Gmel.) Prantl	[1]
	r. J
13. Thelypteridaceae Ching (1 genus and 1 species)	
Phegopteris connectilis (Michx.) Watt	[2, 4]
14. Woodsiaceae Herter (1 genus and 6 species)	
Woodsia calcarea (Fomin) Shmakov	[1, 3, 4]
Woodsia glabella R.Br.	[1, 7, 10]
Woodsia heterophylla (Turcz.) Shmakov	[1]
Woodsia ilvensis (L.) R.Br. [= Woodsia acuminata (Fomin)	Sipliv.] [1–9, 13]
Woodsia pseudopolystichoides (Fomin) Kiselev & Shmako	*
Woodsia subcordata Turcz.	[4, 5, 9]
III Gymnosperms	
15. Cupressaceae Gray (1 genus and 4 taxa)	
Juniperus communis L.	[1, 2, 3, 4, 6, 7]
Juniperus pseudosabina Fisch. & C.A.Mey.	[1-4, 7, 8, 13]
Juniperus sabina var. davurica (Pall.) Farjon [= Juniperus	davurica Pall.] [2]
	6, 6–8, 10, 11, 13, 14]
16. Ephedraceae Dumort. (1 genus and 9 species)	
Ephedra dahurica Turcz. [= Ephedra sinica subsp. dahuric	
	[2, 3, 8, 9, 12]
Ephedra equisetina Bunge	[3, 6–9, 12–16]
Ephedra fedtschenkoi Paulsen	[2, 3, 4, 7]
Ephedra glauca Regel	[12, 14, 15]
Ephedra intermedia Schrenk & C.A.Mey.	[7, 14, 15]
<i>Ephedra lomatolepis</i> Schrenk	[12, 14, 15]
Ephedra monosperma J.G.Gmel.	[1-8, 10, 12-14]
Ephedra przewalskii Stapf	[6, 7, 10–16]
Ephedra sinica Stapf	[2-5, 7-15]
17 Pinacese Spreng (A genera and 9 anasies)	
17. Pinaceae Spreng. (4 genera and 8 species) Abies sibirica Ledeb.	[1 2]
	[1, 2]
Larix czekanowskii Szafer	[4]
Larix gmelinii (Rupr.) Kuzen. [≡ Abies gmelinii Rupr.]	[2, 4]
Larix sibirica Ledeb.	[1–4, 6–8, 10, 14]

[1, 2, 3, 6, 7]

Picea obovata Ledeb.

Pinus pumila (Pall.) Regel	[2]
Pinus sibirica Du Tour	[1, 2, 3, 6, 7]
Pinus sylvestris L.	[1-5, 8, 9]
IV Angiosperms	
18. Acoraceae Martinov (1 genus and 1 species)	
Acorus calamus L.	[1, 3, 4, 5, 8, 9]
19. Adoxaceae E.Mey. [including Viburnaceae Raf.] (3 gener	ra and 6 species)
Adoxa moschatellina L.	[1-3, 5-7, 13]
Sambucus sibirica Nakai	[3, 6]
Sambucus williamsii Hance [= Sambucus manshurica Kita	g.] [1, 2, 3, 4, 5, 9]
Viburnum burejaeticum Regel & Herder	[5]
Viburnum mongolicum Rehder [= Lonicera mongolica Pall	[4, 5, 8, 9]
Viburnum sargentii Koehne	[5]
20. Alismataceae Vent. (2 genera and 4 species)	
Alisma gramineum Lej.	[5, 7, 8, 10, 11, 14]
Alisma plantago-aquatica L.	[1–5, 8–10, 14]
Sagittaria natans Pall.	[4, 9, 10, 14]
Sagittaria trifolia L.	[1, 4, 5, 9, 14]
21. Amaranthaceae Juss. [including Chenopodiaceae Vent.] (3. Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L.	osum Moq.] [6–16] [7, 14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey.	osum Moq.] [6–16] [7, 14] [3, 6–8, 10–16]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk.	[5, 14] [3, 6–8, 10–16] [14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen	[50
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy	[6-16] [7, 14] [3, 6-8, 10-16] [14] [14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen	[6-16] [7, 14] [3, 6-8, 10-16] [14] [14] [14] [14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge	[7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor.	[7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey.	[7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7] [14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge	[7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7, 14] [7] [14] [14] [7] [14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey.	[7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7, 14] [7] [14] [14] [7] [14] [15] [15] [17] [18] [18] [19] [19] [19] [19] [19] [19] [19] [19
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex sibirica L.	[3, 6–8, 10–16] [7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7] [14] [1, 3, 4, 8–10, 12, 13] [3, 4, 8–11, 13–15] [2, 3, 4, 6–16]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarra Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex tatarica L.	[3, 6–8, 10–16] [7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7] [14] [1, 3, 4, 8–10, 12, 13] [3, 4, 8–11, 13–15] [2, 3, 4, 6–16] [7, 10, 14]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex tatarica L. Axyris amaranthoides L.	[7, 14] [7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7, 14] [7] [14] [1, 3, 4, 8–10, 12, 13] [3, 4, 8–11, 13–15] [2, 3, 4, 6–16] [7, 10, 14] [2–5, 8, 9, 13]
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex tatarica L. Axyris amaranthoides L. Axyris hybrida L.	[7, 14] [7, 14] [3, 6–8, 10–16] [14] [14] [14] [14] [7, 14] [7, 14] [7] [14] [14] [15] [17] [18] [19] [19] [19] [19] [19] [19] [19] [19
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex tatarica L. Axyris amaranthoides L. Axyris prostrata L.	[2-5, 7-10, 14] [3, 6-16] [7, 14] [14] [14] [14] [7, 14] [7, 14] [7] [14] [7] [14] [15] [16] [17] [18] [19] [19] [19] [19] [19] [19] [19] [19
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex statarica L. Axyris amaranthoides L. Axyris prostrata L. Bassia hyssopifolia (Pall.) Kuntze	[2-5, 7-10, 14] [6-7, 14] [7, 14] [7, 14] [14] [14] [14] [7, 14] [7] [14] [7, 14] [7] [14] [15] [16] [17, 10, 14] [17] [18] [19] [19] [19] [19] [19] [19] [19] [19
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarra Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex sibirica L. Axyris amaranthoides L. Axyris hybrida L. Axyris prostrata L. Bassia hyssopifolia (Pall.) Kuntze Bassia prostrata (L.) Schrad.	[2-5, 7-10, 14] [3, 6-16] [7, 14] [14] [14] [14] [14] [7, 14] [7] [14] [7] [14] [7] [14] [15] [16-16] [7, 14] [7] [17] [18] [19] [19] [19] [10] [10] [10] [10] [10] [10] [10] [10
Agriophyllum pungens (Vahl) Link [= Agriophyllum squarre Anabasis aphylla L. Anabasis brevifolia C.A.Mey. Anabasis elatior (C.A.Mey.) Schischk. Anabasis eriopoda Paulsen Anabasis pelliotii Danguy Anabasis salsa Paulsen Anabasis truncata Bunge Atriplex altaica Sukhor. Atriplex cana C.A.Mey. Atriplex fera (L.) Bunge Atriplex laevis C.A.Mey. Atriplex sibirica L. Atriplex statarica L. Axyris amaranthoides L. Axyris prostrata L. Bassia hyssopifolia (Pall.) Kuntze	[2-5, 7-10, 14] [3, 6-16] [7, 14] [14] [14] [14] [14] [7, 14] [7] [14] [7] [14] [7] [14] [15] [16, 7, 10, 14] [17] [17] [18] [19] [19] [19] [10] [10] [10] [10] [10] [10] [10] [10

	Camphorosma monspeliaca subsp. lessingii (Litv.) Aellen	[6, 10, 14]
	Caroxylon gemmascens (Pall.) Tzvelev [≡ Salsola gemmascen	<i>us</i> Pall.] [10]
	Caroxylon passerinum (Bunge) Akhani & Roalson	
	[≡ Salsola passerina Bunge]	[8, 10–16]
	Ceratocarpus arenarius L.	[6, 7, 10, 14]
	Chenopodiastrum hybridum (L.) S.Fuentes, Uotila &	
	Borsch [≡ <i>Chenopodium hybridum</i> L.]	[2, 3, 4, 5, 7-16]
	Chenopodium acuminatum Willd.	[3–14, 16]
	Chenopodium album L.	[1–16]
	Chenopodium ficifolium Sm.	[1, 9, 10, 11, 14]
	Chenopodium frutescens C.A.Mey.	[6, 7, 10]
	Chenopodium iljinii Golosk.	[7, 10]
	Chenopodium karoi Aellen	[1–15]
	Chenopodium novopokrovskyanum (Aellen) Uotila	
	[≡ Chenopodium album subsp. novopokrovskyanum (A	ellen) Uotila] [7]
	Chenopodium strictum Roth	[2, 4, 9, 14]
	Chenopodium vulvaria L.	[3, 6–10, 13, 14]
	Climacoptera affinis (C.A.Mey.) Botsch.	
	[≡ <i>Pyankovia affinis</i> (C.A.Mey.) Mosyakin & Roalson	[14]
	Climacoptera subcrassa (Popov) Botsch.	[14]
	Corispermum chinganicum Iljin	[1-12]
	Corispermum declinatum Steph. ex Iljin	[3, 4, 8]
	Corispermum elongatum Bunge	
	[≡ Corispermum stauntonii subsp. elongatum (Bunge)	Vorosch.] [10, 13]
	Corispermum mongolicum Iljin	[3, 4, 7–16]
SE	Corispermum patelliforme Iljin	[10, 13, 16]
SE	Corispermum tylocarpum Hance [= Corispermum gmelinii	
	Dysphania botrys (L.) Mosyakin & Clemants	[7, 14, 15]
	Grubovia dasyphylla (Fisch. & C.A.Mey.) Freitag & G.Ka	
	[≡ Bassia dasyphylla (Fisch. & C.A.Mey.) Kuntze,	
	Kochia dasyphylla Fisch. & C.A.Mey.]	[3–16]
	Grubovia krylovii (Litv.) Freitag & G.Kadereit [≡ Kochia k	
		[6, 7, 10–16]
	Grubovia melanoptera (Bunge) Freitag & G.Kadereit	
	[≡ Kochia melanoptera Bunge]	[3, 6, 7, 10–16]
	Halocnemum strobilaceum (Pall.) M.Bieb.	[14]
	Halogeton glomeratus (M.Bieb.) C.A.Mey.	[7, 10, 11, 14, 15]
	Halostachys caspica C.A.Mey.	[14, 15]
	Haloxylon ammodendron (C.A.Mey.) Bunge	[7, 10–16]
	Iljinia regelii (Bunge) Korovin	[14, 15, 16]
	Kalidium caspicum (L.) UngSternb.	[10, 14]
	Kalidium cuspidatum (UngSternb.) Grubov	[3, 8, 9, 12–16]
	Kalidium foliatum Moq.	[3, 6–16]
	J	F- / - 1

SE	Kalidium gracile Fenzl	[3, 4, 8-16]
	Krascheninnikovia ceratoides (L.) Gueldenst.	
	[= Krascheninnikovia ewersmanniana (Stschegl.) Grubov]	[1, 3, 4, 6–16]
	Micropeplis arachnoidea (Moq.) Bunge	
	[≡ Halogeton arachnoides Moq.]	[4, 6-16]
SE	Nanophyton grubovii U.P.Pratov	[10]
SE	Nanophyton mongolicum U.P.Pratov	[7, 14]
	Oreosalsola abrotanoides (Bunge) Akhani [≡ Salsola abrotanoid	
	````	[6–13]
	Oxybasis chenopodioides (L.) S.Fuentes, Uotila & Borsch	[ ]
	[≡ Chenopodium chenopodioides (L.) Aellen]	[7, 10, 14]
	Oxybasis glauca (L.) S.Fuentes, Uotila & Borsch [= Chenopoa	
		[2–16]
	Oxybasis gubanovii (Sukhor.) Sukhor. & Uotila	[0]
	[≡ <i>Chenopodium gubanovii</i> Sukhor.]	[10, 14]
	Oxybasis rubra (L.) S.Fuentes, Uotila & Borsch	[20, 22]
		[3, 7, 10, 14, 15]
	Oxybasis urbica (L.) S.Fuentes, Uotila & Borsch	[0, / , 10, 11, 10]
	[≡ Chenopodium urbicum L.]	[4, 10]
	Petrosimonia litvinowii Korsh.	[10]
	Petrosimonia sibirica Bunge	[14]
SE	Salicornia altaica Lomon. [≡ Salicornia perennans subsp. a	
OL.	G.Kadereit & Piirainen]	[7]
	Salsola collina Pall. [≡ Kali collinum (Pall.) Akhani & Roalson	
SE	Salsola ikonnikovii Iljin [≡ Kali ikonnikovii (Iljin) Akhani &	
	Sassea ikonnikoon iijiii [— Kan ikonnikoon (iijiii) Milaiii &	[7, 11, 12, 13]
	Salsola jacquemontii Moq [≡ Kali jacquemontii (Moq.) Akhar	
	Saisota jacquemoniii 1v10q [— Rati jacquemoniii (1v10q.) Akiiai.	[8, 13]
	Salsola laricifolia Litv.	[12, 13, 16]
	Salsola monoptera Bunge [≡ Kali monopterum (Bunge) Lomos	
	Salsola paulsenii Litv. [= Kali paulsenii (Litv.) Akhani & Roals	
	Saisoia paaisenti Litv. [– Kaii paaisenti (Litv.) Akiiaiii & Roais	
	Salsola rosacea L.	[3, 7, 9–11, 14]
		[2, 3, 4, 6-16]
	Salsola tragus L.  Sada folioca (I.) Alabani [= Salsola folioca I. = Neogastia folioca (	
	Soda foliosa (L.) Akhani [ $\equiv$ Salsola foliosa L. $\equiv$ Neocaspia foliosa (Salanda acuminata (C. A. Mox). Mox	[6, 10, 14]
	Suaeda acuminata (C.A.Mey). Moq.	
	Suaeda corniculata (C.A.Mey.) Bunge subsp. corniculata	[1, 3-16]
	Suaeda corniculata subsp. mongolica Lomon. & Freitag	[3, 4, 7-11]
	Suaeda glauca (C.A.Mey.) Bunge	[4, 9, 16]
	Suaeda heterophylla (Kar. & Kir.) Bunge	[10–15]
	Suaeda kossinskyi Iljin [≡ Bienertia kossinskyi (Iljin) Tzvelev]	
	Suaeda linifolia Pall.  Suaeda prostrata Pall. [= Suaeda maritima auct. non L.]	[10, 14] [6, 9–13, 16]
	Suaeaa brostrata Fall,  = Suaeaa maritima auct. non L.	10, 7-12, 101

	Suaeda przewalskii Bunge [≡ Bienertia przewalskii	(Bunge) G.L.Chul
	8-1	[10–13]
	Suaeda salsa (L.) Pall.	[8–13, 15, 16]
	Suaeda sibirica Lomon. & Freitag	[3, 4, 8, 9, 10]
SE		[6, 7]
SE	Suaeda tuvinica Lomon. & Freitag	[3, 6, 10]
	Sympegma regelii Bunge	[7, 10–16]
	Teloxys aristata (L.) Moq. [≡ Chenopodium aristatu	
	≡ Dysphania aristata (L.) Mosyakin & Cleman	
	Xylosalsola arbuscula (Pall.) Tzvelev [≡ Salsola arbus	
	<b>22. Amaryllidaceae</b> J.StHil. (1 genus and 50 taxa)	
	Note: According to Sinitsyna et al. (2018), Allium spir	ale is absent in Mongolia
	and A. subangulatum was found in southern Gobi by I	
	Allium altaicum Pall.	[1–3, 6–8, 10, 13, 14]
	Allium amphibolum Ledeb.	[1–4, 6, 7, 10, 13, 14]
	Allium anisopodium Ledeb.	[2–13]
SE	1	[3, 6, 7, 10, 14]
	Allium baicalense Willd. [= Allium senescens	
	subsp. <i>glaucum</i> (Schrader) Dostál]	[1, 3-5, 9, 10]
	Allium bidentatum Fisch.	[1–6, 8–12, 14]
	Allium burjaticum N.Friesen	[3, 4, 8]
	Allium carolinianum Redouté	[14]
	Allium chamarense M.M.Ivanova	[1, 2, 3]
	Allium clathratum Ledeb.	[3, 6, 7, 10, 11]
	Allium condensatum Turcz.	[5, 9]
	Allium eduardi Stearn	[2, 3, 4, 6-16]
	Allium flavidum Ledeb.	[1-4, 6, 7, 13, 14]
	Allium galanthum Kar. & Kir.	[7, 14]
	Allium hymenorrhizum Ledeb.	[7, 14]
	<i>Allium karelinii</i> Poljakov	[7, 14]
	Allium ledebourianum Schult. & Schult.f.	[7]
	Allium leucocephalum Turcz.	[1–4, 7–14, 16]
	Allium macrostemon Bunge	[8, 9]
	Allium malyschevii N.Friesen	[1, 2, 3]
	Allium maximowiczii Regel	[2, 4, 5, 9]
	Allium microdictyon Prokh.	[1, 2, 3, 4]
	Allium monadelphum Turcz.	[1, 2, 3, 6, 7]
	Allium mongolicum Regel	[3, 4, 6-16]
	Allium neriniflorum G.Don	[4, 5, 9]
	Allium obliquum L.	[7]
	Allium oliganthum Kar. & Kir.	[6, 7, 10, 14]
	Allium pallasii Murray	[14]

	Allium platyspathum Schrenk subsp. platyspathum	[3, 6, 7, 13, 14]
	Allium platyspathum subsp. amblyophyllum (Kar. & Kir	
	Allium polyrhizum Turcz.	[1, 2, 3, 4, 7-16]
	Allium prostratum Trev.	[1–13]
SE	Allium pumilum Vved.	[6, 7, 14]
	Allium ramosum L.	[1–13]
	Allium rubens Schrad.	[6, 7, 14]
	Allium schischkinii Sobolevsk.	[3, 6, 7, 10, 11, 13]
	Allium schoenoprasum L.	[1-7, 10]
	Allium schrenkii Regel [= Allium bogdoicola Regel]	[3, 6, 7, 10, 13, 14]
	Allium senescens L.	[1-10, 13]
	Allium splendens Willd.	[1-5, 8, 9]
	Allium spurium G.Don	[1, 2, 4, 5, 9]
	Allium stellerianum Willd.	[1, 2, 3, 4]
	Allium strictum Schrad.	[1-10, 13, 14]
SE	Allium subangulatum Regel	[16]
	Allium subtilissimum Ledeb.	[3, 14]
	Allium tenuissimum L.	[1–5, 7–9, 11–15]
	Allium tuvinicum (N.Friesen) N.Friesen	
	$[\equiv Allium stellerianum subsp. tuvinicum N.Friesen]$	[3, 6, 7, 10]
SE	Allium tytthocephalum Schult.f.	[4, 6, 7, 13]
SE	Allium ubsicola Regel	[6, 10, 14]
	Allium vodopjanovae N.Friesen	[3, 4, 6–8, 10–15]
2	2 Animona Lindl (26 common and 66 town)	
L	3. Apiaceae Lindl. (36 genera and 66 taxa)	[1–5, 13]
	Aegopodium alpestre Ledeb.	2
	Angelica czernaevia (Fisch. & C.A.Mey.) Kitag.	[5, 9]
	Angelica dahurica (Hoffm.) Benth. & Hook.f. $[\equiv Callis]$	[2, 3, 4, 5, 9]
	Angelica saxatilis Turcz. [≡ Physolophium saxatile (Turcz	
	Angelica sylvestris L.	[6, 7]
	Anthriscus sylvestris (L.) Hoffm.	[0, 7]
	Archangelica decurrens Ledeb. [≡ Angelica archangelica s	
	(Ledeb.) Kuvaev]	[1–4, 6, 7, 14]
	Aulacospermum anomalum Ledeb.	[6, 7]
	Bupleurum aureum Fisch.	[7]
	Bupleurum bicaule Helm [= Bupleurum pusillum Krylov	
	Bupleurum densiflorum Rupr. [= Bupleurum mongolicum \	
	Bupleurum krylovianum Schischk.	[3,7]
	Bupleurum multinerve DC. [= Bupleurum longeinvolucr	
	Dapuaram maunici de DO. [- Dapuaram wingembolian	[1-5, 7, 9, 11]
	Bupleurum scorzonerifolium Willd.	[1–6, 8, 9, 12, 13]
	Bupleurum sibiricum Vest	[2, 4, 8, 9]
	Dupunium sionium vest	$[2, \tau, 0, J]$

	Carum buriaticum Turcz.	[1-6, 8, 9]
	Carum carvi L.	[1-5, 7-10, 14]
	Cenolophium denudatum (Hornem.) Tutin	[3, 7, 10, 14]
	Cicuta virosa L.	[1–15]
	Cnidium dauricum (Jacq.) Turcz. [≡ Laserpitium dauricum	<i>i</i> Jacq.] [2–10]
	Cnidium monnieri Cusson	[4, 9]
SE	Conioselinum longifolium Turcz.	[1, 2, 4, 7, 9, 10]
	Conioselinum tataricum Hoffm. [= Conioselinum vaginatu	<i>m</i> (Spreng.) Thell.] [1, 2, 3, 4]
	Elwendia setacea (Schrenk) Pimenov & Kljuykov [≡ Bunis	
	(Schrenk) H.Wolff, $\equiv$ <i>Carum setaceum</i> Schrenk]	[6, 7]
SE	Ferula bungeana Kitag.	[5, 8–16]
0.11	Ferula caspica M.Bieb.	[7, 14]
	Ferula dissecta Ledeb.	[3, 6, 7, 10, 14]
	Ferula dshaudshamyr Korovin [= Ferula dubjanskyi Korovi	
	Ferula ferulioides (Steud.) Korovin	[7]
	Ferula potaninii Korovin	[14]
	Ferula soongarica Pall. [= Ferula mongolica	[11]
	(V.M.Vinogr. & Kamelin) V.M.Vinogr. & Kamelin]	[3 7 10 14 15]
SE	Ferulopsis hystrix (Bunge) Pimenov [= Peucedanum hystrix	
OL	Termopsis 13 ysvriv (Builge) Timenov [ Temecumium 13 ysvriv	[2–4, 6–11, 13, 15]
SE	Haloselinum falcaria (Turcz.) Pimenov [≡ Peucedanum fal	
O.L.		6–8, 10, 11, 13–16]
	Hansenia mongholica Turcz. [≡ Ligusticum mongholicum (7	
	Timeenia menghemen Tarez. [ Ligamenia menghema (	[1,2]
	Heracleum dissectum Ledeb.	[1–7, 9, 10, 11, 13]
	Heracleum sibiricum L.	[1, 2, 3, 9, 13]
	Kadenia salina (Turcz.) Lavrova & V.N.Tikhom. [≡ Cnida	
		[2, 3, 4, 8–11, 13]
	Kitagawia baicalensis (Redow.) Pimenov	[=, 0, 1, 0 11, 10]
	[≡ <i>Peucedanum baicalense</i> (Redow.) Koch]	[1–8, 10]
	Kitagawia terebinthacea (Fisch.) Pimenov	[1 0, 10]
	[≡ <i>Peucedanum terebinthaceum</i> (Fisch.) Ledeb.]	[2, 4, 5, 9]
SE	Lithosciadium kamelinii (V.M.Vinogr.) Pimenov	[2, 1, 0, 0]
0.22	[≡ Cnidium kamelinii V.M.Vinogr.]	[7]
SE	Lithosciadium multicaule Turcz.	[1, 3, 4, 6, 7, 13]
	Neogaya simplex Meisn. [= Pachypleurum alpinum Ledeb.]	
	Oenanthe aquatica (L.) Poir. [= Peucedanum salinum Pall.	
	Ostericum tenuifolium (Pall.) Y.C.Chu [= Pachypleurum al	
	The state of the s	[1–4, 6, 7, 13, 14]
	Paraligusticum discolor (Ledeb.) V.N.Tikhom.	[7]
SE	Peucedanum puberulum Turcz.	[2, 3, 6, 8, 13]
	*	1–4, 6, 7, 8, 11, 13]

	Phlojodicarpus sibiricus Koso-Pol.	[1–4, 7, 8, 9, 13]
	Phlojodicarpus villosus Turcz.	[1, 2, 3, 6]
	Pimpinella thellungiana H.Wolff	[4, 5, 9]
	Pleurospermum uralense Hoffm.	[1-6, 8, 9]
	Prangos ledebourii Herrnst. & Heyn	[7, 14]
	Sajanella monstrosa (Willd.) Soják	[1, 2]
	Saposhnikovia divaricata (Turcz.) Schischk.	[2–6, 8, 9]
	Schulzia crinita (Pall.) Spreng.	[1, 2, 3, 4, 6, 7]
	Seseli abolinii (Korovin) Schischk. [≡ Libanotis abolinii (Ko	_
		[7, 10, 11, 13]
	Seseli buchtormense W.D.J.Koch [≡ Libanotis buchtormensis (Fis	sch.) DC.] [7, 14]
	Seseli condensatum Rchb.f. $[\equiv Libanotis condensata (L.) Fisch.]$	[1–3, 6–8, 10, 14]
	Seseli eriocarpum B.Fedtsch. [≡ Libanotis eriocarpa Schrenk]	[7, 10, 14]
	Seseli glabratum Willd. [= Libanotis tenuifolia DC.]	[7]
SE	Seseli grubovii V.M.Vinogr. & Sanchir [≡ Libanotis grubov	ii (V.M.Vinogr. &
	Sanchir) M.L.Sheh & M.F.Watson]	[7, 13, 14, 15]
	Seseli mucronatum (Schrenk) Pimenov & Sdobnina	[14]
	Seseli seseloides (Fisch. & C.A.Mey.) M.Hiroe	
	[≡ <i>Libanotis seseloides</i> (Fisch. & C.A.Mey. ) Turcz.]	[1-7, 9]
	Sium suave Walter	[1-10, 14]
	Sphallerocarpus gracilis Koso-Pol.	[1-4, 6-13]
	Stenocoelium athamantoides Ledeb. [= Seseli athamantoides (	M.Bieb.) Beck]
		[6, 7]
2	1 (2 110 · )	
2	24. Apocynaceae Juss. (3 genera and 10 taxa)	`] [ <del>~</del> 11 1 / 1 <del>~</del> ]
	Apocynum pictum Schrenk [= Apocynum hendersonii Hook.f	
	Apocynum venetum L. $[\equiv Poacynum venetum (L.) Mavrodiev$	
	Cynanchum acutum subsp. sibiricum (Willd.) Rech.f.	[10–16]
	Cynanchum bungei Decne.	[9]
	Cynanchum chinense R.Br.	[9, 12, 15, 16]
SE	Cynanchum gobicum Grubov [= Vincetoxicum lanceolatum	
		[12–16]
	Cynanchum mongolicum Hemsl.	[16]
		4, 5, 8, 9, 12, 16]
	Vincetoxicum mukdenense Kitag. [= Cynanchum paniculatum	
	Via cotonicama cibinicama (I) Docoo [- Com da chama theciaide	[4, 5, 9]
	Vincetoxicum sibiricum (L.) Decne. [= Cynanchum thesioide.	[2–16]
		[2 10]
2	25. Araceae Juss. (2 genera and 4 species)	
	Lemna minor L.	[1, 3, 4, 7–11, 13]
	Lemna trisulca L.	[1-5, 8-11]
	Lemna turionifera Landolt	[9, 11]

	Spirodela polyrhiza (L.) Schleid.	[5, 9]
	<b>26. Asparagaceae</b> Juss. (5 genera and 19 species)	
	Anemarrhena asphodeloides Bunge	[5, 9]
	Asparagus brachyphyllus Turcz.	[9]
SE	Asparagus burjaticus Peschkova	[4]
	Asparagus dauricus Fisch.	[2–6, 8, 9, 11, 12]
SE	Asparagus gobicus Ivanova	[7–16]
	Asparagus neglectus Kar. & Kir.	[14]
	Asparagus oligoclonos Maxim.	[5]
	Asparagus pallasii Miscz.	[7, 10, 11]
	Asparagus schoberioides Kunth	[5]
	Asparagus tamariscinus Ivanova	[10, 14, 15, 16]
	Asparagus trichophyllus Bunge	[10, 12, 14–16]
	Convallaria keiskei Miq.	[2, 5]
	Maianthemum bifolium (L.) F.W.Schmidt	[1, 2, 3, 4, 5]
	Maianthemum dilatatum (Alph.Wood) A.Nelson & J.F	Macbr. [3, 4, 5,
	-	9]
	Maianthemum × intermedium Vorosch.	[5]
	Maianthemum trifolium (L.) Sloboda	[2]
	Polygonatum humile Fisch.	[4, 5]
	Polygonatum odoratum (Mill.) Druce	[1–5, 8, 9]

# **27. Asphodelaceae** Juss. [including Xantorrhoeaceae Dumort.] (1 genus and 2 taxa) Hemerocallis lilioasphodelus L. var. lillioasphodelus [4, 5, 9] Hemerocallis lilioasphodelus var. minor (Mill.) M.N.Tamura [≡ Hemerocallis minor Mill.]

[1-5, 8, 9, 12]

# 28. Asteraceae Bercht. & J.Presl (85 genera and 456 taxa)

Polygonatum sibiricum Redouté

Note: Some classifications of some genera of Asteraceae have changed after extnesive molecular investigations. For example, species of *Scorzonera* L. were split into several genera, and three of them are present in Mongolia: *Lipschitzia* Zaika, Sukhor. & N.Kilian, *Takhtajaniantha* Nazarova, and *Scorzonera* L. s.str. by Zaika et al. (2020). The taxonomic status of *Scorzonera curvata*, *S. grubovii*, and *S. sinensis* is not resolved yet.

Achillea acuminata Sch.Bip.	[2, 4, 5, 9]
Achillea alpina L.	[1–6, 8–10]
Achillea asiatica Serg.	[1-10, 14]
Achillea impatiens L.	[2, 3, 4]
Achillea ledebourii Heimerl	[3, 7, 8]
Achillea millefolium L.	[1, 2, 3, 4, 7]
Achillea ptarmicoides Maxim.	[2, 4, 8, 9, 10]

	Achillea sergievskiana Shaulo & Shmakov	[7]
SE	Ajania achilleoides Poljakov [3	3, 6–8, 10–13, 15, 16]
	Ajania fruticulosa (Ledeb.) Poljakov	[3, 4, 6–16]
E	Ajania grubovii Muldashev [≡ Chrysanthemum grubovii	(Muldashev)
	H.Ohashi & Yonek.]	[7, 14]
	Ajania trifida (Turcz.) Muldashev [≡ Hippolytia trifida (	
		[3, 6–9, 11–13, 16]
	Allardia tridactylites Sch.Bip. [≡ Waldheimia tridactylites	Kar. & Kir. ]
		[1, 3, 6, 7, 13]
	Ancathia igniaria DC.	[3, 7, 10, 14, 15]
	Antennaria dioica (L.) Gaertn.	[1, 2, 3, 4, 7]
	Arctium tomentosum Mill.	[4]
	Arctogeron gramineum (L.) DC.	[1-5, 7, 8, 9]
	Arnica angustifolia subsp. iljinii (Maguire) I.K.Ferguson	[7]
	Artemisia adamsii Besser	[2, 3, 4, 6-13]
SE	Artemisia aksaiensis Y.R.Ling	[2, 6, 8, 12–14, 16]
	Artemisia amoena Poljakov	[7, 12]
	Artemisia anethifolia Weber	[2, 3, 4, 7-16]
	Artemisia anethoides Mattf.	[8–16]
	Artemisia annua L.	[2-4, 7-10, 12-16]
	Artemisia argyi H.Lév. & Vaniot	[2, 4, 5, 7-9, 12, 13]
	Artemisia argyrophylla Ledeb.	[1, 3, 6, 7, 13, 15]
E	Artemisia assurgens Filatova [≡ Seriphidium assurgens (Fil	latova)
	K.Bremer & Humphries]	[7, 11, 13–15]
	Artemisia aurata Kom.	[2-5, 8, 9, 13]
	Artemisia bargusinensis Spreng.	[1, 2, 3, 4, 5]
SE	Artemisia blepharolepis Bunge	[11, 12, 13, 16]
	Artemisia borealis Pall.	[1-4, 6, 7, 10, 13]
	Artemisia borotalensis Poljakov	
	[≡ Seriphidium borotalense (Poljakov) Ling & Y.R.L.	ing] [7, 14]
SE	Artemisia brachyloba Franch.	[4, 8, 9]
	Artemisia brachyphylla Kitam.	[5]
	Artemisia caespitosa Ledeb.	[3, 4, 6-16]
	Artemisia capillaris Thunb.	[2, 3, 4, 5, 8, 9]
	Artemisia compacta Fisch.	[3, 6–8, 10–12, 14]
	Artemisia dahurica (Turcz.) Poljakov	[4]
E	Artemisia davazamczii Darijma & Kamelin	[7, 10, 13, 15]
	Artemisia demissa Krasch.	[3, 7-16]
	Artemisia depauperata Krasch.	[1–4, 6–8, 10, 11, 13,
		14]
	Artemisia desertorum Spreng. subsp. desertorum	[2, 4, 5, 9, 13]
E	Artemisia desertorum subsp. pseudojaponica Darijma & I	Kamelin [5]
SE	Artemisia disjuncta Krasch.	[7, 13]

SE	Artemisia dolosa Krasch.	[1–9, 11, 13]
SE Artemisia dracunculus var. changaica (Krasch.) Y.R.Ling [≡		■ Artemisia changaica
	Krasch.]	1, 3, 7, 8, 10, 11, 13]
	Artemisia dracunculus L. var. dracunculus	[1–15]
	Artemisia eriopoda Bunge	[16]
	Artemisia feddei subsp. arschantinica (Darijma)	
	Gubanov & Kamelin [≡ <i>Artemisia arschantinica</i> Dari	jma] [16]
	Artemisia feddei H.Lév. & Vaniot subsp. feddei	[5, 9]
	Artemisia freyniana (Pamp.) Krasch.	[4–6, 8–10, 12, 13]
	Artemisia frigida Willd.	[1–16]
SE	Artemisia giraldii Pamp.	[4]
	Artemisia glauca Pall.	[1–8, 10, 14]
SE	Artemisia globosa Krasch.	[6,-8, 10, 12-14]
SE	Artemisia globosoides Ling & Y.R.Ling	[9, 12]
	Artemisia gmelinii Web. var. gmelinii	[2–13]
	Artemisia gmelinii var. messerschmidiana (Besser) Poljakov	
		13]
	Artemisia gracilescens Krasch. & Iljin	[7, 14, 15]
	Artemisia halodendron Turcz.	[4, 5, 8, 9, 12, 16]
	Artemisia heptapotamica Poljakov	[1, 5, 6, 5, 12, 16]
	[≡ Seriphidium heptapotamicum (Poljakov) Ling & Y.	R.Ling] [7, 14]
	Artemisia implicata T.G.Leonova	[16]
	Artemisia integrifolia L.	[1–5, 8, 9, 13]
	Artemisia klementzae Krasch. [= Artemisia xylorhiza Krasc	
	Artemisia laciniata Willd.	[1–5, 7–10, 12, 14]
SE	Artemisia lagocephala Fisch. var. lithophila (Turcz.) Y.R.Li	-
	Artemisia latifolia Ledeb.	[2, 4, 5, 9]
	Artemisia macilenta (Maxim.) Krasch.	[2, 3, 4, 5, 9]
	Artemisia macrantha Ledeb.	[1, 2, 3, 7]
	Artemisia macrocephala Jacquem.	[1, 2, 3, 7] $[1-16]$
	Artemisia manshurica (Kom.) Kom.	[2, 3, 4, 5, 8, 9]
	Artemisia marschalliana Spreng.	
	Artemisia maximovicziana Krasch.	[7] [4, 5, 9]
	Artemisia medioxima Krasch.	[1, 2, 3, 4, 9]
	Artemisia mongolica (Fisch.) Nakai [≡ Artemisia vulgaris v	[1–15]
	Automicia mana laman suban ashinum Krasah	[1-1]
	Artemisia mongolorum subsp. gobicum Krasch.	[2 / ( 16]
	[≡ Artemisia gobica (Krasch.) Grubov]	[3, 4, 6-16]
	Artemisia mongolorum Krasch. subsp. mongolorum	] [2 / ( 1/]
	[≡ Seriphidium mongolorum (Krasch.) Ling & Y.R.Lin	
	Artemisia nitrosa Weber	[3, 4, 8, 9]
	Artemisia obtusiloba subsp. altaiensis (Krasch.) Krasnob. [	
	Krasch.]	[3, 6, 7]

	Artemisia obtusiloba Ledeb. subsp. obtusiloba	[3, 6, 7, 10, 13, 14]
	Artemisia obtusiloba var. glabra Ledeb. [= Artemisia glab	ella Kar. & Kir.]
		[3, 6, 10]
SE	Artemisia ordosica Krasch.	[7, 9, 10, 12–16]
SE	Artemisia oxycephala Kitag.	[4, 5, 8, 9]
	Artemisia palustris L.	[1-13]
	Artemisia pamirica C.Winkl.	[3, 6, 7, 10-13]
	Artemisia phaeolepis Krasch.	[1–4, 6–9, 13, 14]
	Artemisia pubescens Ledeb. [= Artemisia commutata Bess	er]
		[1-4, 6-11, 13, 14]
	Artemisia pycnorrhiza Ledeb.	[1-4, 6-8, 10-14]
	Artemisia rubripes Nakai	[2, 3, 4, 5, 8, 9]
	Artemisia rupestris L.	[1–4, 6–8, 10, 14]
	Artemisia rutifolia var. altaica (Krylov) Krasch.	[7]
	Artemisia sacrorum var. messerschmidtiana (Besser) Y.R.I	Ling
		[2–5, 8, 9, 12, 13]
	Artemisia saissanica (Krasch.) Filatova	[7, 10, 14]
	Artemisia santolinifolia Turcz.	
	[= <i>Artemisia santolinifolia</i> subsp. <i>stepposa</i> Darijma]	[2, 3, 6-15]
	Artemisia schischkinii Krasch.	[6, 7, 10, 14]
	Artemisia schrenkiana Ledeb.	[3, 6, 10, 14]
	Artemisia scoparia Waldst. & Kit.	[2–12]
	Artemisia selengensis Turcz.	[3, 4, 5, 9]
	Artemisia sericea Weber	[1, 2, 3, 4, 5, 8]
	Artemisia sieversiana Ehrh.	[1–16]
SE	Artemisia sphaerocephala Krasch.	[3, 10–16]
	Artemisia stolonifera (Maxim.) Kom.	[3, 7, 10, 13–16]
SE	Artemisia subchrysolepis Filatova [≡ Seriphidium su	bchrysolepis (Filatova)
	K.Bremer & Humphries]	[7, 14]
	Artemisia subdigitata Mattf. [≡ Artemisia dubia var. sube	digitata (Mattf.)
	Y.R.Ling]	[3, 4, 7, 10, 12–16]
	Artemisia sublessingiana Krasch. [= Seriphidium gorjaevi	i (Poljak.) Y.R.Ling]
		[14]
	Artemisia subulata Nakai	[1, 5, 9]
	Artemisia succulenta Ledeb.	[7]
	Artemisia sylvatica Maxim.	[4, 5, 9, 10, 15]
	Artemisia tanacetifolia L.	[1-10, 14]
	Artemisia terrae-albae Krasch.	[7, 14, 15]
	Artemisia tomentella Trautv.	[1, 3, 6, 10–12, 14]
	Artemisia tournefortiana Rchb.	[7, 9, 12, 14]
SE	Artemisia transbaicalensis T.G.Leonova	[1, 3]
	Artemisia umbrosa (Besser) Turcz.	[4, 5, 9]
	Artemisia vestita Wall.	[13]

	Artemisia viridis Willd.	[6, 7, 14]
	Artemisia vulgaris subsp. vulgaris L.	[2, 3]
E	Artemisia vulgaris subsp. inundata Darijma [= Artem	isia superba Pamp.]
		[1-4, 7, 9, 10, 13, 14]
	Artemisia wudanica Liou & W.Wang	[8, 9, 12]
SE	Artemisia xanthochloa Krasch.	[3–16]
	Artemisia xerophytica Krasch.	[6, 7, 8, 10–16]
	Askellia flexuosa (Ledeb.) W.A.Weber	[1, 3, 5–11, 13–16]
	Askellia pygmaea (Ledeb.) Sennikov	[1, 3, 6, 7]
	Aster alpinus L.	[1-10, 13]
	Aster hispidus Thunb.	[2–6, 8–11, 13, 15]
	Aster lingii G.J.Zhang & T.G.Gao [= Rhinactinidia li	imoniifolia Novopokr.]
		[7]
	Aster maackii Regel	[5]
E	Aster sanczirii Kamelin & Gubanov	[5]
	Aster tataricus L.f.	[2, 3, 4, 5, 9]
SE	Asterothamnus alyssoides (Turcz.) Novopokr. [= Aster	alyssoides Turcz.]
		[8, 12]
SE	Asterothamnus centraliasiaticus var. potaninii (Novope	okr.) Y.Ling & Y.L.Chen
	[≡ Asterothamnus potaninii Novopokr.]	[7, 8, 9, 11-16]
SE	Asterothamnus heteropappoides Novopokr.	[6, 7, 10, 14]
	Asterothamnus molliusculus Novopokr.	[12, 15]
	Asterothamnus poliifolius Novopokr.	[3, 6, 7, 10, 11, 13–
	$\mathcal{D}^*$ $I$	15]
	Bidens cernua L.	[3, 4, 6, 7, 9-11]
	Bidens parviflora Willd.	[3, 4, 6, 8–10, 13]
	Bidens radiata Thuill.	[3, 4, 6–10]
SE	Bidens tripartita L.	[1–4, 7, 8–10, 14]
SE SE	Brachanthemum gobicum Krasch.	[12, 13, 16]
E E	Brachanthemum mongolicum Krasch.	[12, 14]
Ľ	Brachanthemum mongolorum Grubov Cancrinia discoidea (Ledeb.) Poljakov	[7, 10–16]
SE	Cancrinia krasnoborovii Khanm.	[10]
SE	Carduus crispus L.	[2–7, 9]
	Carduus ruspus L. Carduus nutans L.	$\begin{bmatrix} 2-7, 7 \end{bmatrix}$ [1, 7]
	Centaurea adpressa Ledeb.	[6]
	Centaurea glastifolia subsp. intermedia (Boiss.) L.Mar	
	[= Centaurea chartolepis Greuter]	[6, 7]
	Centaurea pulchella Ledeb. [= Hyalea pulchella (Ledeb	
	Chondrilla lejosperma Kar. & Kir.	[6, 7, 10, 14]
E	Chrysanthemum chalchingolicum Grubov	[5, 9]
	Chrysanthemum mongolicum Ling [≡ Chrysanthemum	zawadzkii var. mongoli-
	cum (Ling) Gubanov]	[1, 2, 3]

	Chrysanthemum naktongense Nakai	[9]
SE	Chrysanthemum sinuatum Ledeb. [ Tanacetum sinuatum Sch	
	Chrysanthemum trilobatum (Poljakov) H.Ohashi & Yonek.	
	[≡ <i>Ajania trilobata</i> Poljakov]	[12, 13]
	Chrysanthemum zawadzkii Herbich	[1-5, 8, 9]
	Cicerbita azurea (Ledeb.) Beaverd	[3, 7, 10]
		4, 7, 9–11, 13–15]
	Cirsium esculentum C.A.Mey.	[1–4, 6–11, 14]
	Cirsium glabrifolium O.Fedtsch. & B.Fedtsch.	[7]
	Cirsium helenioides (L.) Hill [= Carduus helenioides L.]	[2]
	Cirsium pendulum Fisch.	[2, 4, 5, 9]
	Cirsium serratuloides Hill	[1, 2, 3]
		[3, 4, 7–11, 14, 15]
	Cirsium sieversii (Fisch. & C.A.Mey.) Petr.	[], 1, /-11, 11, 1]
	[= Cirsium polyacanthum Kar. & Kir.]	[7]
	Cirsium vlassovianum Fisch.	[2, 5, 9]
	Cousinia affinis Schrenk	[14]
	Crepidiastrum akagii (Kitag.) J.W.Zhang & N.Kilian	
	[= Youngia tenuicaulis (Babc. & Stebbins) Czerep.]	[2, 3, 6–8, 10–15]
	Crepidiastrum sonchifolium (Bunge) Pak & Kawano	[5]
	Crepidiastrum tenuifolium (Willd.) Sennikov	
	[≡ Crepis tenuifolia Willd. ≡ Youngia tenuifolia (Willd.)	[4 4 4 6 4 /]
	Babc. & Stebbins]	[1-11, 13, 14]
	Crepis bungei Ledeb.	[1-4, 6-9, 11]
	Crepis chrysantha Froel.	[1, 2, 3, 6, 7, 10]
	Crepis crocea (Lam.) Babc. var. crocea	[2, 3, 4, 6–13]
SE	Crepis crocea var. czuensis (Serg.) Tzvelev [≡ Crepis czuensis S	
E	Crepis lomonosovae Tzvelev	[3, 13]
	Crepis lyrata (L.) Froel.	[1,7]
	Crepis multicaulis Ledeb.	[3, 7, 10, 13, 14]
	Crepis polytricha Turcz.	[1, 3, 4, 6, 7]
	Crepis praemorsa (L.) Tausch [≡ Hieracium praemorsum L.]	[4, 10]
	Crepis sibirica L.	[2–5, 7, 8, 11]
	Crepis tectorum L.	[2, 4, 7, 10, 14]
	Doronicum altaicum Pall.	[1]
	Doronicum oblongifolium DC.	[7, 14]
	Doronicum turkestanicum Cavill.	[3, 7, 14]
	Echinops davuricus Fisch. [= Echinops latifolius Tausch]	[1-5, 8, 9]
	Echinops gmelinii Turcz.	[3, 7–16]
	Echinops humilis M.Bieb.	[3, 7, 13–15]
	Echinops integrifolius Kar. & Kir.	[6, 7, 14]
	Echinops nanus Bunge	[7, 14]
	Echinops ritro L.	[7, 14]

	Erigeron acris L.	[1–7, 9, 10, 13]
	Erigeron altaicus Popov	[7, 14]
SE	Erigeron baicalensis Botsch.	[1]
	Erigeron eriocalyx (Ledeb.) Vierh.	[1–3, 6, 7, 13]
	Erigeron krylovii Serg.	[3, 7]
	Erigeron lonchophyllus Hook.	[1–7, 9, 10, 13]
	Erigeron oreades Fisch. & C.A.Mey.	[1, 3, 7, 13]
	Erigeron petiolaris Vierh.	[3,7]
	Erigeron politus Fr.	[1–4, 6, 7, 13]
	Erigeron pseudoeriocephalus Popov	[3]
	Filago arvensis L.	[7, 8, 10, 14]
	Filifolium sibiricum (L.) Kitam. [= Tanacetum sibiricum L.]	[1–5, 8, 9]
	Galatella altaica Tzvelev	[7, 14]
	Galatella angustissima (Tausch) Novopokr.	[1]
	Galatella dahurica DC. [= Galatella macrosciadia Gand.	[-]
	= Galatella songorica Novopokr.]	[1–7, 9, 10]
	Galatella hauptii Lindl.	[7]
	Gnaphalium uliginosum L. [= Gnaphalium baicalense Kirp. 8	
		[2–4, 7, 9, 10, 14]
	Helichrysum arenarium Moench	[7]
	Heteropappus altaicus Novopokrov. [≡ Aster altaicus Willd.]	
		12–16]
	Heteropappus biennis (Ledeb.) Tamamsch.	[1–5, 8, 9]
SE	Heteropappus medius (Krylov) Tamamsch.	[3, 4, 5, 8, 9]
SE	Hieracium czadanense Tupitz.	[1, 10]
	Hieracium korshinskyi Zahn	[2, 4]
	Hieracium narymense Schischk. & Serg.	[2, 4]
	Hieracium robustum Fr.	[8, 9]
	Hieracium sershukense Üksip	[7]
	Hieracium subramosum Lonnr.	[2, 4]
	Hieracium umbellatum L.	[1–5, 7, 8, 9, 10]
	Hieracium virosum Pall.	[2, 3, 4, 5, 7, 9]
	Hololeion maximowiczii Kitam.	[9]
	Hypochaeris maculata L. [≡ Trommsdorffia maculata (L.) Ber	
	Inula japonica Thunb.	[2]
	Inula linariifolia Turcz.	[5, 8, 10, 11]
	Inula salsoloides Ostenf. [ $\equiv$ Limbarda salsoloides Ikonn.] [8,	
	Ixeris chinensis (Thunb.) Kitagawa subsp. chinensis s.l.	, , -, -, -,
	[= Ixeridium graminifolium (Ledeb.) Tzvelev,	
		[2–5, 7–9, 12, 14]
	Jacobaea ambracea (Turcz.) B.Nord. [= Senecio ambraceus Tu	
	J (200000 1	6–10, 14]
	Jacobaea cannabifolia (Less.) E.Wiebe [≡ Senecio cannabifolius	

	Jacobaea erucifolia subsp. argunensis (Turcz.) Veldkamp
	$[\equiv Senecio \ argunensis \ Turcz.] $ [5, 9]
	Jacobaea erucifolia (L.) G.Gaertn., B.Mey. & Scherb. subsp. erucifolia
	[= Senecio erucifolius L.] [2–4, 6, 7, 9, 10]
	Jacobaea vulgaris Gaertn. [ $\equiv$ Senecio jacobaea L.] [3, 4, 7–10, 14]
	Jurinea chaetocarpa (Ledeb.) Ledeb. [7, 14]
	Jurinea margalensis Iljin [7, 14]
SE	Jurinea mongolica Maxim. [= Jurinea potaninii Ilijn] [10–14]
	Jurinea multiflora B.Fedtsch. [7, 14]
	Karelinia caspia Less. [14, 15, 16]
	Kaschgaria komarovii (Krasch. & Rubtzov) Poljakov
	[≡ <i>Tanacetum komarovii</i> Krasch. & Rubtzov] [7, 14, 15]
	Klasea cardunculus (Pall.) Holub [ $\equiv$ Serratula cardunculus (Pall.) Schischk.]
	[2, 3, 4, 5, 7]
	Klasea centauroides (L.) Cass. $[\equiv Serratula centauroides L.]$ [1–5, 7–13]
	Klasea marginata (Tausch) Kitag. [≡ Serratula marginata Tausch]
	[1-4, 7-10, 13, 14]
	Klasea sogdiana (Bunge) L.Martins [≡ Serratula sogdiana Bunge,
	Serratula alatavica C.A.Mey.] [6]
	Lactuca serriola L. [= Lactuca sativa subsp. serriola (L.) Frietema]
	[7, 10, 14, 15]
	Lactuca sibirica Benth. [2–6, 8, 9, 11]
	Lactuca tatarica C.A.Mey. [3, 4, 6–16]
	Lactuca undulata Ledeb. [7, 14]
	Leibnitzia anandria (L.) Turcz. [2, 3, 4, 5, 9]
	Leontopodium campestre HandMazz. [1–3, 6–9, 11, 13, 14]
	Leontopodium conglobatum HandMazz. [1– 9, 13]
	Leontopodium leontopodioides (Willd.) Beauverd [1–5, 8, 9, 16]
	Leontopodium nanum (Hook.f. & Thomson) HandMazz. [16]
	Leontopodium ochroleucum Beauverd [1–3, 6, 7, 13]
	Leontopodium palibinianum Beauverd [2, 4, 5]
	Leuzea carthamoides DC. [= Rhaponticum carthamoides (Willd.) Iljin] [7]
	Leuzea repens (L.) D.J.N.Hind, [≡ Rhaponticum repens (L.) Hidalgo
	$\equiv$ Acroptilon repens (L.) DC.] [6, 7, 10–16]
	Leuzea uniflora (L.) Holub [= Rhaponticum uniflorum (L.) DC.] [1–5, 8, 9]
	Ligularia altaica DC. [6, 7]
	Ligularia fischerii (Ledeb.) Turcz. [2, 3, 4, 5, 9]
	Ligularia glauca (L.) O.Hoffm. [7]
	Ligularia hodgsonii Hook.f. [5, 9]
	Ligularia mongolica DC. [5, 9]
	Ligularia przewalskii Diels [9, 12]
	Ligularia sagitta (Maxim.) Mattf. [≡ Senecio sagitta Maxim.] [4, 5, 9]
	Ligularia sibirica Cass. [1, 2, 3, 4, 5, 9]

	Lipschitzia divaricata (Turcz.) Zaika, Sukhor. & N.Kilian	
	[≡ Scorzonera divaricata Turcz.]	[6–13, 15, 16]
	Matricaria chamomilla L. [= Matricaria recutita L.]	[2]
	Neopallasia pectinata (Pall.) Poljakov	[1-4, 6-16]
SE	Olgaea leucophylla (Turcz.) Iljin	[8, 9, 11-13]
SE	Olgaea lomonossowii (Trautv.) Iljin	[9]
	Omalotheca supina (L.) DC. [= Gnaphalium supinum L.]	[2, 7]
	Packera cymbalaria (Pursh) W.A.Weber & A.Löve	[1 2 7]
	[≡ Senecio cymbalaria Pursh]	[1, 3, 7]
	Parasenecio hastatus (L.) H.Koyama [≡ Cacalia hastata L.]	[1, 2, 3, 4, 5, 9]
	Pentanema asperum (Poir.) G.V.Boiko & Korniy. [≡ Inula asp	
	Pentanema britannica (L.) D.Gut.Larr. [≡ Inula britannica L	[2, 3, 9]
	Pentanema salicinum (L.) D.Gut.Larr. [≡ Inula salicina L.]	[2, 3, 4, 5, 9]
	Petasites frigidus (L.) Fr.	[2, 5, 1, 5, 5]
	Petasites radiatus (J.F.Gmel.) Toman	[1]
	Petasites rubellus (J.F.Gmel.) Toman	[1,3]
	Phalacrachena calva (Ledeb.) Iljin	[10]
	Picris davurica Fisch.	[1, 3, 4, 8, 9]
	Picris hieracioides L.	[2, 3, 4, 5]
	Picris japonica Thunb.	[2, 3, 4, 5, 9]
	Pilosella dublitzkii (B.Fedtsch. & Nevski) Sennikov	
	[≡ <i>Hieracium dublitzkii</i> B.Fedtsch. & Nevski]	[7]
	Pilosella echioides (L.) F.W.Schultz & Sch.Bip. [≡ Hieracium	
		[2, 4]
	Pulicaria vulgaris Gaertn.	[10]
	Rhinactinidia eremophila (Bunge) Novopokr. [= Rhinactinidi	ia eremophila 7, 10, 11, 13, 14]
	Richteria pyrethroides Kar. & Kir. $[\equiv Pyrethrum \ pyrethroides\ (1)]$	•
	B.Fedtsch.]	[7]
	Saussurea acuminata Turcz.	[2, 4, 5]
SE	Saussurea alaschanica Maxim.	[6, 10]
	Saussurea alata DC.	[4, 6, 10]
	Saussurea alpina (L.) DC.	[1–3, 6, 7, 13]
	Saussurea amara (L.) DC.	[1–5, 7–12, 14]
SE	Saussurea arctecapitulata Lipsch.	[1,3]
	Saussurea baicalensis B.L.Rob.	[1, 2, 3, 7]
SE	Saussurea bogedaensis Yu J.Wang & J.Chen	[14]
SE	Saussurea catharinae Lipsch.	[15]
SE	Saussurea ceterachifolia Lipsch.	[3, 6, 7]
	Saussurea congesta Turcz.	[1]
	Saussurea controversa DC.	[1, 2, 3, 5]
	Saussurea coronata Schrenk [= Saussurea dshungarica Iljin]	[7]

	Saussurea daurica Adams	[3, 6–16]
SE	Saussurea dorogostaiskii Palib.	[1, 2]
	Saussurea elata Ledeb.	[7]
	Saussurea elegans Ledeb. [= Saussurea amoena Kar. & Ki	
SE	Saussurea elongata DC.	[1, 2, 4]
	Saussurea foliosa Ledeb.	[6, 7]
	Saussurea glacialis Herder	[1, 3, 6, 7, 13, 14]
SE	Saussurea grubovii Lipsch.	[7, 14, 15]
E	Saussurea gubanovii Kamelin	[7,11,19] $[15]$
L	Saussurea involucrata (Kar. & Kit.) Sch.Bip.	[1–3, 6, 7, 13, 14]
	Saussurea japonica (Thunb.) DC.	[9]
	Saussurea klementzii Lipsch.	[7]
SE	Saussurea krasnoborovii S.V.Smirn.	
SE		[1]
	Saussurea krylovii Schischk. & Serg.	[7]
		4, 6–8, 10, 11, 13–16]
	Saussurea latifolia Ledeb.	[3,7]
CE	Saussurea leucophylla Schrenk	[1, 3, 6, 7, 13]
SE	Saussurea lipschitzii Filatova	[7, 13]
	Saussurea mongolica (Franch.) Franch.	[5]
	Saussurea neoserrata Nakai	[2, 5]
-	Saussurea odontolepis Sch.Bip.	[5]
E	Saussurea odorata E.Pjak	[7]
	Saussurea orgaadayi Khanm. & Krasnob.	[3,7]
	Saussurea parviflora (Poir.) DC.	[1-7, 9]
SE	Saussurea popovii Lipsch.	[14]
	1	3, 6–8, 10, 11, 13, 14]
	Saussurea pseudoalpina N.D.Simpson	[1-3, 6, 7, 13, 14]
	Saussurea pseudosalsa Lipsch.	[15, 16]
	Saussurea pulchella Fisch.	[5, 7, 8, 9]
SE	Saussurea purpurata (Fisch.) Lipsch.	[2, 4]
E	Saussurea ramosa Lipsch.	[3, 10, 11, 15]
	Saussurea recurvata (Maxim.) Lipsch.	[2, 5]
	Saussurea runcinata DC.	[2–4, 7, 8, 10]
E	Saussurea saichanensis Kom.	[1-3, 6, 7, 13, 14]
	Saussurea salicifolia DC.	[2–9]
	Saussurea salsa Spreng.	[3, 5–11, 14, 16]
	Saussurea schanginiana (Wydler) Fisch.	[1-3, 6, 7, 13]
SE	Saussurea squarrosa Turcz.	[1]
	Saussurea stubendorffii Herder	[1,3]
	Saussurea subacaulis (Ledeb.) Serg.	[1, 3, 6, 7, 13]
SE	Saussurea sukaczevii Lipsch.	[1, 2, 3]
	Saussurea ussuriensis Maxim.	[5]
	Scorzonera albicaulis Bunge	[1, 2, 4, 5, 9]

	Scorzonera curvata (Popl.) Lipsch.	[3, 7, 8, 9, 13]
E	Scorzonera grubovii Lipsch.	[7, 14]
	Scorzonera parviflora Jacq.	[14]
	Scorzonera radiata Fisch.	[1-10, 13, 14]
	Scorzonera sinensis (Lipsch. & Krasch.) Nakai	[9]
	Senecio dubitabilis C.Jeffrey & Y.L.Chen	
	[≡ Senecio dubius Ledeb. nom. illegit. non Beck]	[2, 3, 7, 8, 10–15]
E	Senecio kenteicus Grubov	[2]
	Senecio nemorensis L.	[1, 2, 3]
	Senecio subdentatus Ledeb.	[7, 10, 14, 15]
	Senecio vulgaris L.	[1-4, 7, 8, 10]
	Serratula coronata L.	[5, 9]
	Serratula kirghisorum Iljin	[7]
	Solidago dahurica (Kitag.) Kitag.	[1-5, 7, 9]
	Solidago virgaurea L.	[7]
	Sonchella dentata (Ledeb.) Sennikov [≡ Sonchus dentatus	Ledeb.] [10, 14, 15]
	Sonchella stenoma (Turcz.) Sennikov [≡ Crepis stenoma Tu	ırcz.] [8–15]
	Sonchus arvensis L.	[2–5, 7–11, 13, 14]
	Sonchus brachyotus DC.	[8–10, 13, 14]
	Sonchus uliginosus M.Bieb.	[4, 5, 8, 9, 10]
	Stilpnolepis intricata (Franch.) C.Shih	[3, 4, 7, 9-15]
	Symphyotrichum ciliatum (Ledeb.) G.L.Nesom	[3, 4, 9, 10]
	Synurus deltoides (Aiton) Nakai	[4, 5]
	Takhtajaniantha austriaca (Willd.) Zaika, Sukhor. & N.I	Kilian [≡ <i>Scorzonera</i>
	austriaca Willd.]	[2–10, 12–14]
	Takhtajaniantha capito (Maxim.) Zaika, Sukhor. & N.Ki	llian [≡ Scorzonera
	capito Maxim.]	[8, 11–16]
	Takhtajaniantha ikonnikovii (Krasch. & Lipsch.) Zaika, S	Sukhor. & N.Kilian
	[≡ <i>Scorzonera ikonnikovii</i> Lipsch. & Krasch.]	[3, 6–15]
	Takhtajaniantha mongolica (Maxim.) Zaika, Sukhor. & N	N.Kilian [≡ <i>Scorzon-</i>
	era mongolica Maxim.]	[10–16]
	Takhtajaniantha pseudodivaricata (Lipsch.) Zaika, Sukho	r. & N.Kilian [≡
	Scorzonera pseudodivaricata Lipsch]	[3, 6, 7, 9, 10–16]
	Takhtajaniantha pusilla (Pall.) Nazarova [≡ Scorzonera pu	<i>usilla</i> Pall.] [8, 14]
	Takhtajaniantha subacaulis (Regel) Zaika, Sukhor. & N.I	Kilian [= <i>Scorzonera</i>
	subacaulis (Regel) Lipsch.]	[6]
	Tanacetum alatavicum Herder [ $\equiv Pyrethrum \ alatavicum \ C$	O.Fedtsch. &
	B.Fedtsch.]	[7]
E	Tanacetum changaicum (Krasch.) K.Bremer & Humphrie	es $[\equiv Pyrethrum]$
	changaicum Krasch.]	[3, 4, 7, 10]
	Tanacetum crassipes (Stschegl.) Tzvelev	[7]
	Tanacetum krylovianum (Krasch.) K.Bremer & Humphri	ies
	$[\equiv Pyrethrum krylovianum Krasch.]$	[7]

	Tanacetum lanuginosum Sch. [≡ Pyrethrum lanuginosum	
	(Sch.Bip. & Herder) Tzvelev]	[1, 6, 7, 13]
SE	Tanacetum pulchellum Sch. [≡ Pyrethrum pulchellum Turcz	.] [7]
	Tanacetum pulchrum Sch. [= Pyrethrum pulchrum Ledeb.]	[3, 6, 7, 13]
	Tanacetum tanacetoides (DC.) Tzvelev	[2, 3, 6, 7]
	Tanacetum vulgare L. [= Tanacetum boreale Fisch. & DC.]	[1–7, 9]
	Taraxacum armeriifolium Soest	[3–5, 7, 9–14, 16]
	Taraxacum asiaticum Dahlst.	[4, 7, 8, 13]
	Taraxacum atrans Schischk.	[7, 13]
	Taraxacum bessarabicum (Hornem.) HandMazz.	[2-4, 7-10]
	Taraxacum bicorne Dahlst.	[1, 2, 3, 7, 9-12]
SE	Taraxacum bornuurense R.Doll	[3, 4, 6, 7]
	Taraxacum brevirostre HandMazz.	[3, 7, 13]
	Taraxacum ceratophorum (Ledeb.) DC. [= Taraxacum altai	cum Schischk.]
		[1–7, 9, 13, 14]
	Taraxacum collinum DC.	[3, 4, 6-10, 14]
	Taraxacum dealbatum HandMazz.	[1–4, 6–15]
	Taraxacum dissectum Ledeb.	[1-4, 6-10, 12, 13]
	Taraxacum eriopodum DC.	[6, 7, 13, 14]
	Taraxacum erythrospermum Andrz.	[3]
	Taraxacum glabrum DC.	[1-3, 6, 7, 14]
	Taraxacum glaucanthum Nakai	[3, 4, 8]
	Taraxacum goloskokovii Schischk.	[6, 7, 10, 13]
E	Taraxacum inimitabile Kirschner & Štěpánek	[13]
E	Taraxacum junatovii Tzvelev	[3, 7, 13, 14]
	Taraxacum kok-saghyz Rodin	[3, 7, 13]
SE	Taraxacum krasnoborovii Krasnikov	[7]
SE	Taraxacum krylovii Krasnikov & Khanm.	[7]
	Taraxacum leucanthum Ledeb.	[1-4, 6-8, 10-15]
	Taraxacum linczevskyi Schischk.	[7]
SE	Taraxacum longicorne Dahlst.	[1, 2, 5-10]
	Taraxacum luridum G.E.Haglund	[6, 7]
	Taraxacum lyratum (Ledeb.) DC.	[1, 3, 6, 7]
	Taraxacum macilentum Dahlst.	[1, 3, 6, 7]
	Taraxacum microspermum Schischk. [= Taraxacum compact	tum Schischk.]
		[1, 2]
	Taraxacum minutilobum Popov	[7]
		-4, 6, 7, 10, 11, 13
	Taraxacum mongoliforme R.Doll [1	, 2, 4, 7–11, 13, 15]
	Taraxacum monochlamydeum HandMazz.	[3, 4, 7, 12-15]
	Taraxacum mujense Petrochenko	[1, 2]
	Taraxacum multisectum Kitag.	[9]
	Taraxacum officinale F.H.Wigg.	[1, 2, 3, 4]

	Taraxacum parvulum DC.	[14]
	Taraxacum pawlodarskum R.Doll [= Taraxacum ustameni	um R.Doll [7]
	Taraxacum pingue Schischk.	[1, 3, 6, 7]
	Taraxacum pseudoatratum Orazova	[6]
SE	Taraxacum pseudonivale Malyschev	[1]
	Taraxacum puberulum G.E.Haglund	[14]
SE	Taraxacum sangilense Krasnob. & Khanm.	[1, 2, 3, 4, 6, 7]
	Taraxacum scariosum (Tausch) Kirschner & Štěpánek [=	<u> </u>
	stenolobum Stschegl., Taraxacum commixtiforme Soes	
E	Taraxacum selengensis Tzvelev	[3]
	Taraxacum sinicum Kitag. [= Taraxacum borealisinense Ki	tam.] [3–16]
SE	Taraxacum smirnovii M.S.Ivanova	[7]
SE	Taraxacum songoricum Schischk.	[6, 7, 13]
	Taraxacum stanjukoviczii Schischk.	[7, 13]
E	Taraxacum submacilentum Tzvelev	[7]
	Taraxacum sumneviczii Schischk.	[1, 7, 13]
	Taraxacum tibetanum HandMazz.	[13, 14]
	Taraxacum turgaicum Schischk.	[7, 13, 14]
SE	Taraxacum tuvense Krasnob. & Krasnikov	[1]
	Tephroseris flammea (DC.) Holub [≡ Senecio flammeus D	
	Tephroseris integrifolia subsp. atropurpurea (Ledeb.) B.No	
	Tephroseris integrifolia (L.) Holub subsp. integrifolia [= Se	
	(Retz.) DC.]	[1-4, 6-9, 13]
	Tephroseris kirilowii (DC.) Holub	[5]
	Tephroseris palustris (L.) Rchb. [≡ Senecio palustris (L.) H	
SE	Tephroseris porphyrantha (Schischk.) Holub [= Senecio por	
	chk.]	[1, 7]
	Tephroseris praticola (Sisk. & Serg.) Holub [= Senecio asiati	
	reprinted printed (electric de electric) reprinted printed and the electric desired and the elec	[1, 2, 3, 7]
	Tephroseris pricei (N.D.Simpson) Holub	[1, 2, 0, 7]
	[≡ Senecio pricei N.D.Simpson]	[1, 3, 6, 7, 13, 14]
SE	Tephroseris sukaczevii (Schischk.) Holub	[1, 5, 0, 7, 15, 11]
OL	[≡ Senecio sukaczevii Schischk.]	[2, 4, 9]
	Tephroseris turczaninovii (DC.) Holub	[2, 1, 7]
	[=Senecio sumneviczii Schischk. & Serg.]	[1, 2, 3, 6, 7]
	Tephroseris vereszczaginii (Schischk. & Serg.) Holub	[1, 2, 3, 0, 7]
	[  Senecio veresczaginii Schischk. & Serg.]	[7]
	Tibetiodes flaccida (Bunge) G.L.Nesom	[/]
	[≡ Erigeron flaccidus (Bunge) Botsch.]	[1, 2, 3, 4, 6, 7]
	Tragopogon kasahstanicus S.A.Nikitin	[7]
	Tragopogon orientalis L.	[6, 7]
	Tragopogon ruber S.G.Gmel.	[7, 14]
	Tragopogon songoricus S.A.Nikitin	[6, 7, 13, 14]
SE	Tragopogon trachycarpus S.A.Nikitin	[2–5, 7, 8, 13]
	Trazopozon viacisycai pas 0.11.1 VIXIIII	[2-J, /, 0, 1J]

		Tripleurospermum ambiguum (Ledeb.) Franch. & Sav. [≡ Matricaria ambigua (Ledeb.) Krylov]	[6, 7]
		Tripolium pannonicum (Jacq.) Dobrocz. [ $\equiv$ Tripolium pannonicum (Jacq.)	
		Trommsdorffia ciliata (Thunb.) Soják [≡ Hypochaeris ci	
SE		Tugarinovia mongolica Iljin Tugarinovia fastigiata (Fisch ) DC [= Astan fastigiata	[11, 12, 13, 16]
		Turczaninovia fastigiata (Fisch.) DC. [ $\equiv$ Aster fastigiatu. Vickifunkia songarica (Fisch.) C.Ren [ $\equiv$ Ligularia songa	
		Vickifunkia thomsonii (C.B.Clarke) C.Ren	
		[≡ Ligularia thomsonii (C.B.Clarke) Pojark.] Vickifunkia thyrsoidea (Ledeb.) C.Ren [≡ Ligularia thy	[14] rsoidea (Ledeb.) DC.]
		vickijankia insyrsolaca (Ledeb.) C.1en [– Liguaria insy	[6, 7, 14]
	29.	Balsaminaceae A.Rich. (1 genus and 2 species)	
		Impatiens noli-tangere L.	[1, 2, 3, 4, 5, 9]
		Impatiens parviflora DC.	[7]
	30.	Berberidaceae Juss. (1 genus and 2 species)	
		Berberis amurensis Rupr.	[5]
		Berberis sibirica Pall.	[1-4, 6, 7, 9, 10, 13]
	31.	Betulaceae Gray (2 genera and 9 taxa)	
		Alnus alnobetula subsp. fruticosa (Rupr.) Raus	[1, 2, 4, 9]
		Betula fruticosa Pall.	[1, 2, 3, 4, 5, 6]
		Betula mandshurica subsp. tauschii (Regel) Kamelin	[4, 5]
		Betula microphylla Bunge Betula nana subsp. exilis (Sukachev) Hultén	[1–4, 6–8, 10, 13, 14]
		Betula nana subsp. rotundifolia (Spach) Malyschev	[1, 2, 3, 6, 7]
		Betula ovalifolia Rupr.	[1–5, 7, 8, 13]
		Betula pendula subsp. mandshurica (Regel) Ashburner	
		Betula pendula Roth subsp. pendula	[2, 3, 4]
	32.	Biebersteiniaceae Schnizl. (1 genus and 1 species)	
		Biebersteinia odora Stephan	[6, 7]
	33.	Bignoniaceae Juss. (1 genus and 1 species)	
SE		Incarvillea potaninii Batalin	[13, 15, 16]

# **34. Boraginaceae** Juss. (24 genera and 78 taxa)

Note: Since Urgamal et al. (2014), several genera and species have been critically revised and updated by Ovczinnikova (2019a). Additionally, six new species of *Craniospermum* Lehm. have been described from Mongolia by Ovczinnikova and

Korolyuk (2016) and Ovchinnikova (2019b, 2020). We follow the treatment of Ovczinnikova (2019a). Furthermore, *Arnebia tibetica* previously known as a synonym of *A. guttata*, differs from *A. guttata* based on floral morphology and plastid genome characteristics discovered by Park et al. (2020).

Amblynotus rupestris (Pall.) Popov [≡ Eritrichium rupestre (Georgi) Bunge] [1-9, 13]Anchusa arvensis (L.) M.Bieb. [7, 10, 11, 14]Anoplocaryum compressum Ledeb. [≡ Echinospermum compressum (Ledeb.) SE Turcz. [1, 2, 3, 6, 8]E Anoplocaryum tenellum A.L.Ebel & Rudaya [≡ Microula tenella (A.L.Ebel & Rudaya)] [7] SE Anoplocaryum turczaninovii Krasnob. [1, 3, 6, 7, 8, 10, 14]Arnebia decumbens Coss. & Kralik [6, 7, 8, 13, 14]Arnebia fimbriata Maxim. [11–13, 15, 16] Arnebia guttata Bunge [3, 7, 10-16]Arnebia tibetana Kurz [7] [3, 6, 7, 10, 14] Asperugo procumbens L. Asperula gobicola Grubov [= Asperula saxicola Grubov] E [13, 16]SE Craniospermum canescens DC. [3, 7, 13, 14] E Craniospermum desertorum Ovczinnikova & A.Korolyuk [7] E Craniospermum gubanovii Ovczinnikova [14]E Craniospermum kamelinii Ovczinnikova [7] SE Craniospermum mongolicum I.M.Johnst. [7, 11-14]Ε Craniospermum montanostepposum Ovczinnikova [7] Craniospermum pseudotuvinicum Ovczinnikova & A.Korolyuk E [10]SE Craniospermum tuvinicum Ovczinnikova [6, 7]E Craniospermum volkovae Ovczinnikova [10]Cynoglossum divaricatum Steph. [3, 4, 8, 9, 13, 14]SE Eritrichium alpinum Ovczinnikova [6] Eritrichium pauciflorum DC. [1-8, 13]Eritrichium pectinatum DC. [3] SE Eritrichium pulviniforme Popov [3, 10, 13]SE Eritrichium sajanense (Malysch.) Sipliv. [1]Eritrichium thymifolium (DC.) Y.S.Lian & J.Q.Wang [3, 4, 6-15]Eritrichium tianschanicum Iljin [6] Eritrichium villosum (Ledeb.) Bunge [ $\equiv$  Myosotis villosa Ledeb.] [2, 3, 4, 6, 7, 14] Hackelia deflexa (Wahlenb.) Opiz [≡ Myosotis deflexa Wahlenb.] [2-5, 7, 9, 10, 13]Heliotropium ellipticum Ledeb. [6, 7, 15]Lappula balchaschensis Popov [7, 13, 14, 15]Lappula brachycentroides Popov [3] Lappula consanguinea Gürke [2-4, 6, 7, 10, 11, 13, 14]Lappula coronifera Popov [3]

	Lappula duplicicarpa Pavlov	[7, 12, 14]
SE	Lappula granulata (Krylov) Popov	[3, 7, 9, 10, 12]
	Lappula heteracantha (Ledeb.) Gürke	[7]
	Lappula intermedia (Ledeb.) Popov	[3, 4, 6, 7, 9, 14, 15]
	Lappula krylovii Ovczinnikova, Pjak & A.L.Ebel	[7]
	Lappula macrantha (Ledeb.) Gürke	[7, 14]
	Lappula microcarpa Gürke	[7, 10]
	Lappula myosotis Wolf	[2–5, 8, 9, 13]
	Lappula patula Asch.	[3, 15]
	Lappula redowskii (Hornem.) Greene	[1-4, 8, 9, 11-13]
	Lappula semiglabra (Ledeb.) Gürke	[7, 11, 14, 15]
	Lappula stricta (Ledeb.) Gürke	[3, 7–12, 14, 15]
	Lappula tadshikorum Popov	[7]
	Lappula tenuis Gürke	[14, 15]
	Lappula tianschanica Popov & Zakirov	[7]
	Lappula tuvinica Ovczinnikova	[6]
	Lindelofia stylosa (Kar. & Kir.) Brand [≡ Cynoglossum s	
		[7, 10, 11, 14]
	Mertensia davurica (Sims) G.Don [= Mertensia ochrole	uca IkonnGal.]
		[1, 2, 3, 4]
	Mertensia pallasii G.Don	[7]
	Mertensia stylosa DC.	[1, 2, 3]
	Mertensia tarbagataica B.Fedtsch.	[7]
SE	Microula tibetica var. pratensis (Maxim.) W.T.Wang	[≡ Tretocarya pratensis
	Maxim.]	[3,7]
	Myosotis alpestris F.W.Schmidt	[1-4, 6, 7, 9, 14]
	Myosotis austrosibirica O.D.Nikif.	[7, 13]
	Myosotis baltica Sam.	[3, 5]
	Myosotis caespitosa Schultz	[2–5, 9, 10, 14]
	Myosotis krylovii Serg.	[1-4, 6, 7, 13]
	Myosotis scorpioides L.	[2]
	Myosotis stricta Link	[7]
	Nonea caspica G.Don	[7, 10, 11, 14, 15]
	Nonea pulla DC.	[2, 4, 8, 9, 14]
	Nonea rossica Steven	[3]
	Onosma fuyunensis Y.He & Q.R.Liu	[7]
	Onosma gmelinii Ledeb.	[7, 14]
	Onosma setosa Ledeb. subsp. setosa	[7]
	Onosma setosa subsp. transrhymnensis (Klokov) Kameli	n [3, 7, 10]
	Pseudolappula occultata (Popov) Q.R.Liu & D.H.Liu	
	[≡ <i>Lappula occultata</i> Popov]	[14]
	Pulmonaria dacica (Simonk.) Simonk. [= Pulmonaria mo	llissima A.Kern.] [2, 4]
	Rindera tetraspis Pall.	[14]

Rochelia bungei Trautv.	[3, 6, 14]
Rochelia leiocarpa Ledeb.	[6, 14]
Stenosolenium saxatile (Pall.) Turcz. [≡ Anchusa saxatilis Pall.]	[3, 4, 10]
Tournefortia sibirica L. [= Messerschmidia sibirica (L.) L.]	[5, 8–13, 16]

### **35.** Brassicaceae Burnett (51 genera and 138 taxa)

Note: The updated checklist and taxonomic notes of Brassicaceae was recently revised by German (2015). In this study, we followed German (2015) where the names of several species and genera changed compared to Urgamal et al (2014). Since 2015, several new records of this family have been found in the flora of Mongolia (Dorofeyev 2019; Dorofeyev and Ekhmaa 2020). For example, *Lepidium gobicum* V.I.Dorof. was newly described from Mongolia and China by Dorofeyev (2019); however, this species should be referred to *Lepidium apetalum* Willd. (German 2020).

I	,
Alyssum desertorum Stapf	[3, 6, 7, 8, 10]
Alyssum lenense Adams	[1-5, 7, 8, 9]
Aphragmus involucratus O.E.Schulz	[7, 13]
Arabidopsis thaliana (L.) Heynh.	[6, 7]
Arabis borealis Andrz.	[2, 3, 4, 5, 9]
Barbarea orthoceras Ledeb.	[2, 3, 4, 5, 9]
Barbarea vulgaris W.T.Aiton	[2, 3, 4, 5, 7]
Braya humilis (C.A.Mey.) B.L.Rob.	
[= Neotorularia grubovii (Botsch.) Botsch., Neotorula	ria mongolica
Botsch. & Gubanov]	[1, 3, 4, 6, 7, 8]
Braya rosea Bunge	[1, 3, 6, 7]
Braya siliquosa Bunge	[1]
Camelina microcarpa Andrz.	[4, 6, 14]
Capsella bursa-pastoris (L.) Medik.	[2–4, 6, 7, 10, 14]
Capsella orientalis Klokov [≡ Capsella bursa-pastoris subsp	o. orientalis (Klokov)
Tzvelev]	[7, 10]
Cardamine bellidifolia L.	[1, 2, 3, 7]
Cardamine impatiens L.	[6]
Cardamine leucantha (Tausch) O.E.Schulz	[5]
Cardamine macrophylla Willd.	[1, 2, 6, 7]
Cardamine parviflora L.	[2, 3]
Cardamine pratensis L.	[1-5, 7, 9]
Cardamine prorepens Fisch.	[5]
Cardamine trifida (Lam.) B.M.G.Jones	[5]
Catolobus pendulus (L.) Al-Shehbaz [= Arabis pendula L.]	
	1–6, 8, 9, 10, 12, 13]
Chorispora bungeana Fisch. & C.A.Mey.	[7]
Chorispora sibirica (L.) DC.	[6, 7, 13, 14]
Chorispora tenella (Pall.) DC.	[7, 14]
Clausia aprica Trotzky	[1-4, 6, 7, 9]

	Clausia trichosepala (Turcz.) F.Dvořák	[4]
	Crucihimalaya mollissima (C.A.Mey.) Al-Shehbaz [≡ S	Sisymbrium mollissimum
	C.A.Mey.]	[6, 7, 9, 13, 14]
SE	Crucihimalaya rupicola (Krylov) A.L.Ebel & D.A.Ge	erman [≡ <i>Arabis rupicola</i>
	Krylov]	[6, 7, 10, 11, 13, 14]
	Dendroarabis fruticulosa (C.A.Mey.) D.A.German &	X Al-Shehbaz [≡ <i>Arabis</i>
	fruticulosa C.A.Mey.]	[1, 7]
	Descurainia sophia (L.) Webb	[1–10, 12–14]
SE	Dontostemon crassifolius (Bunge) Maxim.	[7, 10–16]
	Dontostemon dentatus Ledeb.	[5]
SE	Dontostemon elegans Maxim.	[6, 7, 10, 11, 13–16]
E	Dontostemon gubanovii (D.A.German) D.A.German	$1 \equiv Dontostemon senilis$
	subsp. gubanovii D.A.German]	[6, 7, 10]
	Dontostemon integrifolius (L.) Ledeb.	[1-13, 16]
	Dontostemon micranthus C.A.Mey.	[1–5, 8, 9, 13]
SE	Dontostemon perennis C.A.Mey.	[3, 5–8, 10–13, 15]
	Dontostemon pinnatifidus (Willd.) Al-Shehbaz & H.C	)hba [≡ <i>Cheiranthus pin-</i>
	natifidus Willd.]	[1, 3, 4, 8, 13]
SE	Dontostemon senilis Maxim.	[6, 7, 8, 10–16]
	Draba alpina L.	[6]
	Draba altaica (C.A.Mey.) Bunge	[6, 7, 13]
SE	Draba baicalensis Tolm.	[3, 6, 7]
	Draba eriopoda Turcz.	[1, 2, 3, 6]
	Draba fladnizensis Wulfen	[1, 2, 3, 6, 7, 13]
	Draba hirta L.	[1, 2, 3, 6, 7, 13]
	Draba kusnetzovii (Turcz.) Hayek	[1, 3, 6, 7, 13]
	Draba lanceolata Royle	[1-4, 6, 7, 13]
	Draba mongolica Turcz.	[1, 3]
	Draba nemorosa L.	[1-10, 13]
	Draba ochroleuca Bunge	[1, 3, 6, 7, 13]
	Draba oreades Schrenk	[1, 3, 6, 7, 13]
SE	Draba pygmaea Turcz.	[1, 3, 6]
	Draba sibirica (Pall.) Thell.	[3, 7]
	Draba stenocarpa Hook.f. & Thomson	[7]
	Draba subamplexicaulis C.A.Mey.	[1-3, 6, 7, 13, 14]
	Draba turczaninowii Pohle	[1, 6, 7, 13]
	Erysimum andrzejowskianum Bess.	[7]
	Erysimum cheiranthoides subsp. altum Ahti [witho	out indication of regions]
	Erysimum cheiranthoides L. subsp. cheiranthoides	[1-5, 7-11, 13, 14]
	Erysimum cheiranthoides subsp. transiliense (Popov) D	.A.German [≡ <i>Erysi</i> -
	mum transiliense Popov]	[7]
	Erysimum flavum (Georgi) Bobrov subsp. flavum	[1-5, 8, 9, 12]
	Erysimum flavum subsp. altaicum (C.A.Mey.) Polozhi	j [3, 6, 7, 10]

SE	Erysimum kotuchovii D.A.German	[7]
	Erysimum ledebourii D.A.German	[7]
	Erysimum marschallianum Andrz.	[2–4, 6, 7, 10, 13, 14]
SE	Erysimum mongolicum D.A.German	[7, 14]
	Erysimum sisymbrioides C.A.Mey.	[6, 7, 15]
	Eutrema edwardsii subsp. compactum (O.E.Schulz) A	A.L.Ebel $\equiv Eutrema$
	compactum O.E.Schulz]	[7]
	Eutrema edwardsii R.Br. subsp. edwardsii	[1-3, 6, 7, 13]
	Eutrema salsugineum (Pall.) Al-Shehbaz & Warwick	
	[≡ Sisymbrium salsugineum Pall.]	[3, 4, 6-10]
E	Galitzkya macrocarpa (IkonnGal.)Botsch. [≡ Berteroa	a macrocarpa Ikonn
	Gal.]	[13, 15]
SE	Galitzkya potaninii (Maxim.)Botsch.	[7, 14, 15]
SE	Goldbachia ikonnikovii Vassilcz.	[6, 7, 8, 10, 11, 13,
		14]
	Goldbachia pendulaBotsch.	[7, 14]
	Hesperis sibirica L.	[1, 2, 3, 4, 7]
	Hornungia procumbens Hayek	[3, 6, 7, 10, 11, 14]
	Iljinskaea planisiliqua (Fisch. & C.A.Mey.) Al-Shehbaz	
	[≡ Conringia planisiliqua Fisch. & C.A.Mey.]	[6, 14]
	Isatis costata C.A.Mey.	[2-4, 6-9, 11-14]
	Isatis gymnocarpa (Fisch.) Al-Shehbaz, Moazzeni & Mun	nm.
	[≡ Tauscheria gymnocarpa Fisch.]	[14]
	Isatis multicaulis (Kar. & Kir.) Jafri	[14]
	Isatis oblongata DC.	[1, 3, 4, 6–9, 13]
	Leiocarpaea cochlearioides (Murray) D.A.German & Al-S	Shehbaz
	[≡ <i>Bunias cochlearioides</i> Murray]	[1]
	Leiospora exscapa (C.A.Mey.) F.Dvořák [≡ Parrya exscapa	C.A.Mey.] [1, 6, 7]
	Lepidium affine Ledeb. [ $\equiv$ Lepidium latifolium subsp. affi	ine (Ledeb.) Kitag.] [4, 9, 14]
	Lepidium amplexicaule Willd.	[3, 7–11, 14, 15]
	Lepidium apetalum Willd.	[3, 7, 11, 11, 15] $[1-5, 7-15]$
	Lepidium appelianum Al-Shehbaz	[7, 10, 11, 14–16.]
	Lepidium cartilagineum Thell.	[5–8, 10, 12, 14]
	Lepidium cordatum Willd.	[6–11, 13–16]
	Lepidium lacerum C.A.Mey. [= Lepidium songaricum Sch	
	Lepidium obtusum Basiner	[6, 7, 10, 14, 15]
	Litwinowia tenuissima (Pall.) Woronow	[14]
	Macropodium nivale R.Br.	[1,7]
	Matthiola superba Conti	[14]
	Megacarpaea megalocarpa Schischk.	[14]
	Meniocus linifolius (Willd.) DC. [≡ Alyssum linifolium W	
SE	Microstigma brachycarpum Botsch.	[6, 7, 15, 16]

SE	Microstigma deflexum (Bunge) Juz. [3	3, 6, 7, 12, 13, 15, 16]
	Neotorularia brevipes (Kar. & Kir.) Hedge & J.Léonard	[≡ Sisymbrium
	brevipes F.Muell.]	[7, 14]
	Noccaea ferganensis (N.Busch) Czerep. [≡ Thlaspi fergane	ense N.Busch] [7]
	Noccaea thlaspidioides (Pall.) F.K.Mey.	
	[≡ Lepidium thlaspidioides Pall. = Thlaspi cochlearifor	rme DC.] [1–9, 13]
	Odontarrĥena obovata C.A.Mey. [≡ Alyssum obovatum (C.A	
	Olimarabidopsis pumila (Stephan) Al-Shehbaz	•
	[≡ Sisymbrium pumilum Stephan]	[14]
SE	Pachyneurum grandiflorum Bunge	[1, 3, 6, 7, 13]
	Pugionium dolabratum Maxim.	[11, 12, 13, 16]
SE	Pugionium pterocarpum Kom.	[10]
	Rhammatophyllum erysimoides (Kar. & Kir.) Al-Shehbaz	& O.Appel
	[≡ Arabis erysimoides Kar. & Kir.]	[7, 14]
	Rorippa barbareifolia (DC.) Kitag.	[2]
	Rorippa dogadovae Tzvelev	[3, 11]
	Rorippa palustris Besser	[1-11, 13, 14]
	Sisymbrium brassiciforme C.A.Mey.	[7, 9, 14, 15]
	Sisymbrium heteromallum C.A.Mey.	[2-4, 6-8, 10-14]
	Sisymbrium loeselii L.	[3, 4, 14]
	Sisymbrium polymorphum (Murr.) Roth	[3, 4, 6–10, 14]
	Sisymbrium subspinescens Bunge	[14]
	Smelowskia alba (Pall.) B.Fedtsch. [1,	3, 4, 6, 7, 10, 13, 14]
SE	Smelowskia altaica (Pobed.) Botsch.	[6, 7]
	Smelowskia bifurcata (Ledeb.) Botsch.	[1,3]
	Smelowskia calycina (Stephan) C.A.Mey. [= Lepidium ca	lycinum Steph.]
		[1, 3, 6, 7, 13, 14]
SE	Smelowskia calycina subsp. pectinata (Bunge) D.A.Germ	an [= Hutchinsia pecti-
	nata Bunge]	[3, 7, 13, 14]
E	Smelowskia mongolica Kom.	[3]
SE	Sterigmostemum violaceum (Botsch.) H.L.Yang [≡ Oreolo	ma violaceum Botsch.,
	= Sterigmostemum regeliorum Kamelin & D.German]	[7, 14]
	Stevenia alyssoides Adams & Fisch.	[1,3]
SE	Stevenia alyssoides subsp. zinaidae (Malyschev) Kamelin	n [≡ Stevenia zinaidae
	Malyschev]	[1,3]
	Stevenia canescens (DC.) D.A.German	
	$[\equiv Alyssum\ canescens\ DC.\equiv Ptilotrichum\ canescens\ (I)$	OC.) C.A.Mey.] [1–4,
	6–9, 11–16]	
SE	Stevenia cheiranthoides DC. subsp. cheiranthoides	[4, 5, 6, 7, 9]
	Stevenia cheiranthoides subsp. incarnata (Kamelin) D.A.	German
		[1–4, 6–8, 10]
SE	Stevenia dahurica (Peschkova) D.A.German & Al-Shehl	baz [≡ Alyssum dahuri-
	cum (Peschkova) Al-Shehbaz, Ptilotrichum dahuricum Pe	eschkova] [4, 5, 8, 9]

SE	Stevenia sergievskajae (Krasnob.) Kamelin & Gubanov [≡ A	
CE	Krasnob.]	[3]
SE	Stevenia tenuifolia (Stephan) D.A.German [≡ Alyssum tenu	J
		[2–10, 12–15]
	Strigosella africana (L.) Botsch.	[10, 11]
	Strigosella brevipes (Bunge) Botsch.	[14]
	Subularia aquatica L.	[3, 6]
	Tetracme quadricornis (Steph.) Bunge	[7, 14]
	Thlaspi arvense L.	[1-4, 6, 7, 13, 14]
	Thlaspi ceratocarpum (Pall.) Murray	
	[≡ Carpoceras ceratocarpum (Pall.) N. Busch]	[6, 10, 14]
	Turritis glabra L.	[7]
	<b>36. Butomaceae</b> Mirb. (1 genus and 2 species)	
	Butomus junceus Turcz.	[1, 8, 9, 10, 14]
	Butomus umbellatus L.	[1–5, 8, 9, 14]
	<b>37. Campanulaceae</b> Juss. (4 genera and 18 taxa)	
E	Adenophora changaica Gubanov & Kamelin	[3]
	Adenophora gmelinii Fisch.	[4, 5, 9]
	Adenophora lamarkii Fisch. [≡ Campanula lamarckii D.Die	tr.] [2, 3, 4, 6]
	Adenophora liliifolia (L.) A.DC. [≡ Campanula liliifolia L.]	[2, 6, 8]
	Adenophora pereskiifolia (Fisch.) G.Don	[4, 5, 9]
	Adenophora stenanthina (Ledeb.) Kitagawa [= Adenophora c	
		[1–5, 8, 9, 13]
	Adenophora tricuspidata A.DC.	[2, 4, 5, 9]
	Adenophora triphylla (Thunb.) A.DC. [≡ Campanula triphy	
		[2, 4, 9]
	Campanula cervicaria L.	[2]
	Campanula dasyantha M.Bieb.	[1,2]
	Campanula glomerata L.	[1–7, 9]
	Campanula punctata Lam.	[9]
	Campanula rotundifolia L.	[6]
	Campanula stevenii subsp. altaica (Ledeb.) Fed. [≡ Campan	
	Campania sievenii suosp. aiaita (Ledeo.) Ted. [– Campan	[7]
	Campanula stevenii subsp. turczaninovii (Fed.) Victorov	
	[≡ Campanula turczaninovii Fed.]	[1, 2, 3, 6, 13]
	Campanula stevenii subsp. wolgensis (P.A.Smirn.) Fed.	
	[≡ Campanula wolgensis P.A.Smirn.]	[7]
	Codonopsis clematidea C.B.Clarke	[7]
	Platycodon grandiflorus A.DC.	[5]
		r- 1
	<b>38. Caprifoliaceae</b> Juss. (5 genera and 24 taxa)	
	Linnaea borealis L.	[1, 7, 13, 14]
		_

	Lonicera caerulea subsp. altaica (Pall.) Gladkova [≡ Lonice	ra altaica Pall.]
		[1-4, 6, 7, 13, 14]
	Lonicera caerulea L. subsp. caerulea	[6]
	Lonicera caerulea var. venulosa (Maxim.) Vorosch. $[\equiv Lonice$	ra venulosa Maxim.]
		[5]
	Lonicera chrysantha Turcz.	[5]
	Lonicera hispida Pall.	[3, 6, 7, 13, 14]
	Lonicera microphylla Willd. [≡ Caprifolium microphyllum (	[Willd.) Kuntze]
	[3, 6, 7]	7, 9, 10, 13, 14, 16]
	Lonicera tatarica L.	[4]
	Patrinia heterophylla Bunge	[9]
	Patrinia intermedia Roem. & Schult.	[3, 6, 7, 14]
	Patrinia rupestris (Pall.) Dufr. [≡ Valeriana rupestris Pall.]	[1–5, 8, 9]
	Patrinia scabiosifolia Fisch.	[4,5]
	Patrinia sibirica (L.) Juss.	[1–7]
	Scabiosa comosa Fisch.	[1–5, 8, 9]
	Scabiosa ochroleuca L.	[3, 10]
	Valeriana altaica Sumnev.	[1,2]
	Valeriana alternifolia Ledeb. [= Valeriana dahurica Sumne	
	Valeriana capitata Pall.	[1]
	Valeriana dubia Bunge	[1, 3, 6, 7, 14]
	Valeriana martjanovi Krylov [= Valeriana saichanensis Kon	
	Valeriana officinalis L.	[1, 2, 3, 4, 8, 9]
	Valeriana petrophila Bunge	[1, 3, 6, 7, 13]
SE	Valeriana tangutica Batalin	[16]
SE	Valeriana transjenisensis Kreyer	[1, 3, 7]
3	9. Caryophyllaceae Juss. (20 genera and 97 taxa)	
	Acanthophyllum pungens Boiss.	[6, 7, 14]
	Arenaria leptoclados Guss.	[7]
	Arenaria serpyllifolia L.	[7, 14]
	Cerastium alpinum L.	[6]
	Cerastium arvense L.	[1-10, 13, 14]
	Cerastium cerastoides (L.) Britton [ $\equiv$ Dichodon cerastoides (2)	L.) Rchb.
	≡ Stellaria cerastoides L.]	[1-7, 10, 14]
	Cerastium davuricum Fisch.	[2, 4, 7, 14]
	Cerastium falcatum (Gren.) Bunge [≡ Stellaria falcata Ser.]	[14]
	Cerastium holosteoides Fr. $[\equiv Cerastium fontanum f. holosteoides]$	oides (Fr.)
	M.B.Wyse Jacks.]	[2]
	Cerastium lithospermifolium Fisch.	[1, 3, 6, 7, 10, 13]
	Cerastium maximum L.	[13]
	Cerastium pauciflorum Steven	[1, 2, 3, 6, 7]
	Cerastium pusillum Ser.	[1, 2, 3, 6, 7, 14]

Cherleria arctica (Steven) A.J.Moore & Dillenb.		
[≡ <i>Minuartia arctica</i> (Steven) Graebn.]	[1, 2, 3, 4, 6, 7]	
Cherleria biflora (L.) A.J.Moore & Dillenb.		
[≡ Minuartia biflora (L.) Schinz & Thell.]	[1, 2, 3, 6, 7]	
Dianthus chinensis L. [= Dianthus versicolor Fisch.]	[1–11, 13]	
Dianthus crinitus subsp. soongoricus (Schischk.) Kozhevn.	F / - 1	
[≡ <i>Dianthus soongoricus</i> Schischk.]	[7, 14]	
Dianthus ramosissimus Pall.	[10]	
Dianthus repens Willd. [ $\equiv$ Dianthus chinensis subsp. repens (W		
Duning repens wind. [ Duning connection subsept repens ( )	[6, 7]	
Dianthus superbus L.	[1-10, 13]	
Eremogone androsacea (Grubov) Ikonn. [= Arenaria androsace		
Eremogone unarosacea (Grubov) ikolili. [– 21renaria unarosace		
Engraphic disting (Schiophly) Ilropp [= Amonguin disting Sci	[13]	
Eremogone asiatica (Schischk.) Ikonn. [  Arenaria asiatica Schischk.]		
Eremogone capillaris (Poir.) Fenzl [  Arenaria capillaris Poir.]		
Eremogone juncea (M.Bieb.) Fenzl [  Arenaria juncea M.Bieb.]	[4, 5, 9]	
Eremogone meyeri (Fenzl) Ikonn. [  Arenaria meyeri Fenzl]		
	7, 9, 10, 12, 13]	
<i>Eremogone mongolica</i> (Schischk.) Ikonn. [≡ <i>Arenaria mongolica</i>		
Gymnocarpos przewalskii Maxim. [≡ Paronychia przewalskii (B	Bunge ) Rohweder	
& Urmi-König]	[12, 14, 16]	
Gypsophila altissima L.	[7]	
Gypsophila capituliflora Rupr.	[7, 13, 14, 15]	
Gypsophila cephalotes (Schrenk) F.N.Williams	[6, 7]	
Gypsophila davurica Fenzl		
[≡ <i>Gypsophila patrinii</i> subsp. <i>davurica</i> (Fenzl) Kozhevn.]	[2-5, 8, 9, 13]	
Gypsophila paniculata L.	[3, 4, 7, 10]	
	3, 4, 6–8, 10, 11]	
Gypsophila perfoliata L.	[10]	
Gypsophila sericea (Ser.) Krylov [≡ Arenaria sericea Ser.]	[7]	
Herniaria caucasica Rupr.	[7]	
Herniaria glabra L.	[7]	
Heterochroa desertorum Bunge [≡ Gypsophila desertorum Fenz		
$I = I \cdot I \cdot I \cdot I \cdot I \cdot (C \land M \land E \land E \cap C \land C \cdot I \cdot I \cdot I)$	[1–4, 6–13, 16]	
Lepyrodiclis holosteoides (C.A.Mey.) Fenzl [≡ Gouffeia holosteo		
	[3, 10]	
Moehringia lateriflora (L.) Fenzl [≡ Arenaria lateriflora L.]		
Moehringia umbrosa (Bunge) Fenzl [≡ Arenaria umbrosa Bun	ge] [1, 2, 6,	
7]		
Pseudocherleria laricina (L.) Dillenb. & Kadereit		
[≡ Minuartia laricina Mattf.]	[4, 5]	
Pseudostellaria rupestris (Turcz.) Pax	[1-4, 7, 13]	

	Sabulina regeliana (Trautv.) Dillenb. & Kadereit
	[= Minuartia regeliana (Trautv.) Mattf.] [3]
	Sabulina stricta (Sw.) Rchb. $[\equiv Minuartia stricta (Sw.) Hiern]$ [1, 2, 3]
	Sabulina verna Rchb. $[\equiv Minuartia verna (L.) Hiern]$ $[1-3, 6, 7, 14]$
	Sagina saginoides (L.) H.Karst. [7]
	Saponaria floribunda (Kar. & Kir.) Boiss.
	[≡ Psammophiliella floribunda (Kar. & Kir.) Ikonn.] [14]
	Silene alexandrae B.Keller [14]
	Silene altaica Pers. [7, 13, 14]
	Silene aprica Turcz. [≡ Ussuria aprica (Turcz.) Tzvelev] [1–5, 7–10, 12, 13]
	Silene borysthenica (Gruner) Walters [3, 10]
	Silene bungei Bocquet [1, 2, 3, 6]
	Silene chamarensis Turcz. [≡ Silene tenuis subsp. chamarensis
	(Turcz.) Kozhevn.] [1–3, 6, 7, 9, 10, 12, 13]
	Silene conoidea L. [7]
	Silene foliosa Maxim. [4, 12, 13]
	Silene graminifolia Otth [= Silene sobolevskajae Czerep.] [2, 6, 7, 10, 14]
	Silene gubanovii Lazkov [6, 7, 13, 14]
SE	Silene intramongolica Lazkov [7, 14]
	Silene jeniseensis Willd. [= Silene iche-bogdo Grubov] [1–6, 8, 9, 13]
	Silene latifolia subsp. alba (Mill.) Greuter & Burdet [ $\equiv$ Lychnis alba Mill.] [7]
E	Silene mongolica Maxim. [10, 13]
	Silene quadriloba Turcz. [2, 3, 7, 10, 14]
	Silene repens Patrin [1–10, 12–14]
	Silene samojedorum (Sambuk) Oxelman
	[ $\equiv$ Lychnis sibirica subsp. samojedorum Sambuk.] [1, 2, 3, 4, 5, 9]
	Silene sibirica Pers. [14]
	Silene songarica (Fisch., C.A.Mey. & Avé-Lall.) Bocquet [= Gastrolychnis
	brachypetala (Hornem.) Tolm. & Kozhanczikov] [1–7, 9, 12, 13]
	Silene suaveolens Kar. & Kir. [≡ Carpophora suaveolens (Kar. & Kir.) Tzvelev
	$\equiv$ Melandrium suaveolens (Kar. & Kir.) Schischk,] [7, 10, 14]
	Silene uralensis (Rupr.) Bocquet [1–3, 6, 7, 10, 13, 14]
	Silene violascens (Tolm.) V.V.Petrovsky & Elven
	$[\equiv Gastrolychnis\ violascens\ Tolm.]$ [7]
	Silene viscosa Schleich. [3, 7, 10, 14]
	Silene vulgaris (Moench) Garcke [ $\equiv$ Behen vulgaris Moench [2, 4, 6, 7]
	Spergularia marina (L.) Besser
	$[\equiv Arenaria\ rubra\ var.\ marina\ L.]$ [4, 5, 7, 10–15]
	Spergularia segetalis G.Don [14]
	Stellaria alsinoides Boiss. & Buhse [7, 14]
	Stellaria amblyosepala Schrenk [7, 10–16]
	Stellaria brachypetala Bunge [= Stellaria alatavica Popov,
	Stellaria brachypetala var. alatavica (Popov) Kozhevn.] [1, 3–7, 9, 11, 13, 14]

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Stellaria bungeana Fenzl [≡ Hylebia bungeana (Fenzl) Tzvelev Stellaria cherleriae (Fisch. ) F.N.Williams [≡ Arenaria cherleri	
	[1-9, 13]
Stellaria crassifolia Ehrh.	[1-11, 14]
Stellaria davurica Willd.	[1-4, 7, 14]
Stellaria depressa Schmid	[7]
Stellaria dichotoma L.	[1–14]
Stellaria dichotoma var. lanceolata Bunge [= Stellaria gypsophi	
	9, 11–13, 15, 16]
Stellaria discolor Turcz.	[4, 5, 9]
Stellaria filicaulis Makino	[2, 3]
Stellaria imbricata Bunge	[6, 7, 14]
Stellaria irrigua Bunge	[1-4, 6, 7, 13]
Stellaria longifolia Muhl.	[1, 2, 3, 4, 5, 9]
Stellaria longipes Goldie [= Stellularia longipes (Goldie) MacN	Mill.] $[1-3, 5-7, 9]$
Stellaria martjanovii Krylov [= Mesostemma martjanovii (Kry	lov) Ikonn.] [7]
Stellaria media (L.) Vill. [= Alsine media L.]	[2, 3]
Stellaria palustris Ehrh.	[2, 3, 7, 9]
Stellaria petraea Bunge	[1-4, 6, 7, 13]
Stellaria pulvinata Grubov	[6, 7]
Stellaria radians L.	[5, 9]
Stellaria zolotuchinii A.L.Ebel [≡ Stellaria glandulifera N.Zol	
	[3, 10]
<b>40.</b> Celastraceae R.Br. (2 genera and 3 species)	
Euonymus maackii Rupr.	[5, 9]
Parnassia laxmannii Pall.	[1-4, 6, 10]
Parnassia palustris L.	[1-11, 14]
Turnussia painsiris L.	[1-11, 14]
41. Ceratophyllaceae Gray (1 genus and 2 taxa)	
Ceratophyllum demersum L.	[1, 4, 8-10, 14]
Ceratophyllum platyacanthum subsp. oryzetorum (Kom.) Les	[10]
<b>42. Cleomaceae</b> Bercht. & J.Presl (1 genus and 1 species)	
Cleome gobica Grubov	[15]
<b>43. Convolvulaceae</b> Juss. (4 genera and 15 species)	
Calystegia hederacea Wall.	[12, 13]
Calystegia pellita G.Don [= Calystegia dahurica Herb.]	[12, 13] $[1, 3, 4]$
Calystegia sepium (L.) R.Br. [≡ Convolvulus sepium L.]	[14]
Calystegia subvolubilis G.Don	[2,3]

[10–16]

Convolvulus ammannii Desr.	[2, 3, 4, 6–14, 16]
Convolvulus arvensis L.	[2, 3, 4, 7-16]
Convolvulus fruticosus Pall.	[7, 10–16]
Convolvulus gortschakovii Schrenk	[7, 8, 10, 11, 13–16]
Convolvulus tragacanthoides Turcz.	[12, 16]
Cuscuta australis R.Br.	[9]
Cuscuta chinensis Lam.	[4, 9, 12, 13, 15, 16]
Cuscuta europaea L.	[3–7, 9, 13, 14]
Cuscuta lupuliformis Krock.	[6, 7, 10, 14]
Cuscuta monogyna Vahl [≡ Monogynella monogyna (V	Vahl) Hadač] [4, 5, 8, 14]
Merremia sibirica (L.) Hallier f.	[3]
44. Cornaceae Bercht. & J.Presl (1 genus and 1 species)	)
Cornus alba L.	[1, 2, 3, 4, 5, 9]
<b>45. Crassulaceae</b> J.StHil. (6 genera and 17 taxa)	
Crassula aquatica (L.) Schönland	[2, 4, 6, 10]
Hylotelephium ewersii (Ledeb.) H.Ohba [≡ Sedum eu	versii Ledeb.] [6, 7, 14]
Hylotelephium pallescens (Freyn) H.Ohba	[2, 3, 4, 5]
Hylotelephium telephium (L.) H.Ohba [≡ Sedum telephi	phium L.] [1–10]
Orostachys fimbriata (Turcz.) A.Berger [≡ Cotyledon j	fimbriata Turcz.]
	[2–6, 8–13]
Orostachys malacophylla (Pall.) Fisch. [ $\equiv$ Cotyledon m	valacophylla Pall.]
	[1-5, 8, 9]
Orostachys spinosa (L.) Sweet $\equiv$ Cotyledon spinosa L.	
Orostachys thyrsiflora Fisch.	[1, 3-11, 13-15]
Phedimus aizoon (L.) 't Hart [≡ Sedum aizoon L.]	[1-14]
Phedimus hybridus (L.) 't Hart [≡ Sedum hybridium ]	
Pseudosedum lievenii A.Berger	[7, 14]
Rhodiola algida (Ledeb.) Fisch. & C.A.Mey.	[6,7]
Rhodiola coccinea (Royle) Boriss.	[7]
Rhodiola litwinowii Boriss.	[3, 6, 7, 10]
Rhodiola quadrifida (Pall.) Fisch. & C.A.Mey.	[1-3, 6, 7, 13]
Rhodiola rosea L. [≡ Sedum roseum (L.) Scop.]	[1–8, 13, 14]
Rhodiola stephani (Cham.) Trautv. & C.A.Mey. [= R	hodiola krylovii Polozhij
& Revjakina = <i>Rhodiola pinnatifida</i> Boriss.	
= Rhodiola subpinnata (Krasnob.) Krasnob.]	[1, 2, 6, 7, 10]
<b>46. Cynomoriaceae</b> Endl. (1 genus and 1 species)	
Cynomorium songaricum Rupr. [≡ Cynomorium cocci	•
	[10 16]

songaricum (Rupr.) J.Léonard]

## **47. Cyperaceae** Juss. (10 genera and 131 taxa)

Note: To date, eight species of Kobresia Willd. have been recorded in Mongolia (Nyambayar 2009b; Urgamal et al. 2014), and they were recently transferred to the genus Carex L. (Global Carex Group 2015).

Blysmus compressus L. subsp. brevifolius (Decne) Kukkonen

Blysmus compressus L. subsp. brevifolius (Decne.) Kukkone	en
[2	-5, 7-9, 11, 13, 14]
Blysmus rufus Link	[1, 3-15]
Bolboschoenus maritimus (L.) Palla [≡ Scirpus maritimus L.	[14, 16]
Bolboschoenus maritimus subsp. affinis (Roth) T.Koyama	
[= Bolboschoenus popovii T.V.Egorova]	[10–16]
Bolboschoenus planiculmis (F.Schmidt) T.V.Egorova	[4, 5, 8-12, 15]
Carex accrescens Ohwi [= Carex pallida C.A.Mey.]	[2]
Carex acuta L.	[2, 3, 14]
Carex alatauensis S.R.Zhang [= Kobresia humilis (C.A.Meg	y.) Serg.] [3, 6, 7,
	11, 13]
Carex alba Scop.	[1, 2]
Carex altaica (Gorodkov) V.I.Krecz. [≡ Carex orbicularis s	ubsp.
altaica (Gorodkov) T.V.Egorova]	[3]
Carex amgunensis F.Schmidt [= Carex chloroleuca Meinsh.]	[1, 2, 3, 5, 7]
Carex appendiculata Kük.	[2, 4, 5, 8-10]
Carex argunensis Turcz. [ $\equiv$ Carex rupestris subsp.	
argunensis (Turcz.) Vorosch.]	[2, 4, 5, 7, 9]
Carex arnellii Christ	[2, 3, 4, 5, 9]
Carex aterrima Hoppe	[1, 2, 3, 6, 7]
Carex atherodes Spreng.	[1-5, 7, 8, 9, 11]
Carex atrofusca Schkuhr	[1, 3, 7]
Carex bigelowii subsp. ensifolia (Gorodkov) Holub	[1, 2, 3, 6, 7]
Carex bigelowii subsp. rigidioides (Gorodkov) T.V.Egorova	[2,3]
Carex bistaminata (W.Z.Di & M.J.Zhong) S.R.Zhang	
[≡ Kobresia bistaminata W.Z.Di & M.J.Zhong	
	-3, 5-7, 10, 13, 14]
Carex bohemica Schreb.	[4]
Carex borealipolaris S.R.Zhang [= Kobresia sibirica (Turcz.	
= Kobresia smirnovii Ivanova]	[1, 2, 3, 6, 7, 14]
Carex brunnescens (Pers.) Poir. $[\equiv Carex \ curta \ var. \ brunnescens]$	
Carex canescens L.	[2, 4, 7]
Carex capillifolia (Decne.) S.R.Zhang [= Kobresia capillifo	
Carex capitata L.	[1, 2, 3, 7]
Carex capricornis Meinsh.	[10]
Carex caryophyllea Latourr.	[1-4, 6, 7, 8, 13]
Carex cespitosa L.	[1-10, 15]
Carex chordorrhiza L.f.	[2]
Carex coriophora Fisch. & C.A.Mey.	[1-5, 8, 9]

	Carex curaica Kunth	[1–3, 6, 7, 10, 11, 14]
	Carex dahurica Kük.	[1, 2]
	Carex delicata C.B.Clarke	[1–10, 13]
	Carex diandra Schrank	[2, 5, 9, 10]
	Carex diluta M.Bieb.	[10]
	Carex distans subsp. aspratilis (V.I.Krecz.) T.V.Egorova	
	Carex duriuscula C.A.Mey.	[1-14, 16]
	Carex eleusinoides Turcz.	[2, 3]
	Carex enervis C.A.Mey.	[1–13, 15]
	Carex eremopyroides V.I.Krecz.	[9, 11]
	Carex ericetorum Pollich	[4]
	Carex globularis L.	[1, 2, 7]
	Carex gotoi Ohwi [≡ Carex songorica subsp. gotoi (Ohw	vi) Popov] [4, 5, 9]
	Carex hancockiana Maxim.	[2, 3, 5]
	Carex heterolepis Bunge	[5]
SE	Carex iljinii V.I.Krecz.	[1, 2, 3]
	Carex karoi Freyn [= Carex selengensis N.A.Ivanova]	[2, 3, 4, 5, 9, 10]
	Carex korshinskii Kom.	[1–6, 8–10, 12, 13]
	Carex lachenalii Schkuhr	[1, 7, 14]
	Carex lanceolata Boott	[2]
	Carex lasiocarpa Ehrh.	[2]
	Carex laxa Wahlenb.	[1, 2]
	Carex ledebouriana C.A.Mey. [≡ Carex capillaris subsp	•
	ledebouriana (C.A.Mey.) Vorosch.]	[1, 2, 3, 6, 7]
	Carex leporina L.	[2, 3, 7]
	Carex limosa L.	[2]
	Carex lithophila Turcz. [ $\equiv$ Carex disticha subsp.	
	lithophila (Turcz.) D.Hämet-Ahti]	[2-5, 7, 9, 10]
	Carex loliacea L.	[2, 5]
	Carex macrogyna Turcz.	[1, 3, 6, 7, 13]
	Carex macroprophylla (Y.C.Yang) S.R.Zhang [≡ Kobres	sia filifolia (Turcz.)
	C.B.Clarke $\equiv$ <i>Kobresia filifolia</i> (Turcz.)	
	C.B.Clarke var. <i>macroprophylla</i> Y.C.Yang]	[1-4, 6-9, 13]
	Carex magellanica Lam. subsp. irrigua (Wahlenb.) Hii	tonen
	[≡ Carex limosa L. var. irrigua Wahlenb.]	[2, 3]
	Carex media R.Br.	[1-4, 6, 7, 10]
	Carex melanantha C.A.Mey.	[1-3, 6, 7, 9, 13]
	Carex melanocephala Turcz.	[1, 3, 7]
	Carex meyeriana Kunth	[1, 2, 3, 5]
	Carex microglochin Wahlenb.	[1-4, 6-8, 11, 14]
	Carex nigra subsp. juncea (Fr.) Soó [= Carex juncella T	[1, 3] [1, 3]
	Carex norvegica Retz.	[1, 2, 3, 4, 6, 7]
	Carex obtusata Lilj.	[1-3, 6, 7, 9, 13]

	Carex orbicularis Boott	[1–8, 12–15]
	Carex pamirica (O.Fedtsch.) B.Fedtsch. subsp. dichro	
	[≡ <i>Carex pulla</i> Gooden. subsp. <i>dichroa</i> Freyn]	
	1	
	Carex parallela Laest. subsp. redowskiana (C.A.Mey.)	
	[≡ Carex redowskiana C.A.Mey.]	[1,7]
	Carex parva Nees	[3]
	Carex pediformis var. macroura (Meinsh.) Kük.	[1 2 2 5 7]
	[≡ Carex macroura Meinsh.]	[1, 2, 3, 5, 7]
	Carex pediformis subsp. pediformis	[1–9, 13, 14]
	Carex praecox Schreb.	[2,4]
	Carex pseudofoetida Kük.	[7, 13]
	Carex pycnostachya Kar. & Kir. [≡ Carex curaica subsp	
	(Kar. & Kir.) T.V.Egorova ]	[3, 11, 14]
	Carex raddei Kük.	[2]
	Carex relaxa V.I.Krecz.	[3, 4, 8, 9]
	Carex reptabunda (Trautv.) V.I.Krecz.	[1, 3–5, 8, 9, 11, 12, 16]
	Carex rhynchophysa Fisch.	[2-5, 9, 10]
	Carex rostrata Stokes	[1-5, 8, 9, 10]
	Carex rupestris All.	[1, 2, 3, 6, 7, 13]
	Carex sabulosa Turcz.	[1-4, 7, 8, 10]
	Carex sabynensis Less.	[2, 3]
SE	Carex sajanensis V.I.Krecz.	[1–4, 6–9, 11, 12]
	Carex sargentiana (Hemsl.) S.R.Zhang [≡ Kobresia sar	rgentiana Hemsl.
	= Kobresia robusta Maxim.]	[3]
	Carex saxatilis L. [= Carex saxatilis subsp. laxa (Trauts	v.) Kalela] [1, 3]
	Carex schmidtii Meinsh.	[2, 3, 4, 5, 8, 9]
	Carex sedakowii C.A.Mey.	[1, 2, 4]
	Carex simpliciuscula Wahlenb. [= Kobresia simpliciuscu	<i>ula</i> subsp.
	subholarctica T.V.Egorova]	[1, 2, 3, 7, 12, 14]
	Carex songorica Kar. & Kir.	[4, 5, 9, 10, 14]
	Carex sordida Van Heurck & Müll.Arg.	[1, 2, 3, 6, 7, 8, 13, 14]
	Carex stenophylla subsp. stenophylloides (V.I.Krecz.) T.	V.Egorova [3, 7–16]
	Carex supermascula V.I.Krecz.	[1, 2, 4, 5, 9, 13]
	Carex tenuiflora Wahlenb.	[1, 2, 3]
	Carex tomentosa L.	[2, 4, 8]
	Carex tristis subsp. stenocarpa (Turcz.) T.V.Egorova	[1–3, 6–8, 13, 14]
	Carex vaginata var. petersii (C.A.Mey.) Akiyama [= Car	
	Carex vaginata Tausch var. vaginata	[1, 2, 3]
	Carex vesicata Meinsh.	[1–6, 8, 9, 14]
	Carex williamsii Britton	[2]
	Carex yamatsutana Ohwi [= Carex diplasiocarpa V.I.K	
	Cyperus fuscus L.	[8, 9, 10]
	Cyperus hamulosus M.Bieb. [ $\equiv$ Mariscus hamulosus (M.B	
	-	1

Cyperus michelianus (L.) Delile [≡ Scirpus micheliani	us L.] [4]
Cyperus pannonicus Jacq. [≡ Juncellus pannonicus	
(Jacq.) C.B.Clarke]	[10, 11, 16]
Eleocharis acicularis (L.) Roem. & Schult.	[2–4, 6–9, 11, 14]
Eleocharis mamillata (H.Lindb.) H.Lindb.	[10]
Eleocharis mitracarpa Steud.	[7, 14, 15]
Eleocharis palustris (L.) Roem. & Schult. [≡ Scirpus p	palustris L.] [1–16]
Eleocharis quinqueflora (Hartmann) O.Schwarz	
[≡ <i>Scirpus quinqueflorus</i> Hartmann]	[2-4, 7, 8, 10, 11, 15]
Eleocharis uniglumis Schult. [= Eleocharis klingei	
(Meinsh.) B.Fedtsch.]	[1, 3–5, 8–10, 12–15]
Eleocharis yokoscensis (Franch. & Sav.) Tang & F.T.W	Vang
[≡ Eleocharis acicularis subsp. yokoscensis	
(Franch. & Sav.) T.V.Egorova]	[2-5, 8, 9, 14]
Eriophorum altaicum Meinsh.	[1, 2, 3, 6, 7]
Eriophorum angustifolium Honck.	[1-7, 9, 10, 11]
Eriophorum angustifolium subsp. komarovii (V.N.Vas	ssil.) M.S.Novos. [1–10]
Eriophorum brachyantherum Trautv. & C.A.Mey.	[1-4, 6, 7, 10]
Eriophorum callitrix C.A.Mey.	[1]
Eriophorum chamissonis C.A.Mey.	
[= Eriophorum mandshuricum Meinsh.]	[1, 3, 4, 5, 7]
Eriophorum gracile W.D.J.Koch [= Eriophorum graci	<i>le</i> subsp. <i>asiaticum</i>
(V.N.Vassil.) M.S.Novos.]	[3, 4]
Eriophorum humile Turcz.	[1, 2, 3, 6, 7]
Eriophorum vaginatum L.	[3]
Schoenoplectiella supina (L.) Lye [= Schoenoplectus sup	
Schoenoplectus lacustris subsp. hippolytii (V.I.Krecz.)	
[≡ Scirpus hippolyti V.I.Krecz.]	[1–10, 12–15]
Schoenoplectus tabernaemontani (C.C.Gmel.) Pall.	[2, 3, 14]
Schoenoplectus triqueter (L.) Palla [≡ Scirpus triqueter	
Scirpus orientalis Ohwi [≡ Scirpus sylvaticus subsp. or	
(Ohwi) Vorosch.]	[2, 3, 4, 5, 9]
Scirpus radicans Schkuhr	[2, 3, 4, 5, 9]
Trichophorum pumilum (Vahl) Schinz & Thell.	[1, 3, 4, 8, 9, 10, 14]
interior in principal ( value) de inicia	[1,0,1,0,7,10,11]
<b>48. Droseraceae</b> Salisb. (2 genera and 3 species)	
Aldrovanda vesiculosa L.	[10]
Drosera anglica Huds.	[2]
Drosera rotundifolia L.	[2]
$J^{-1}$	r_1
<b>49. Elaeagnaceae</b> Juss. (2 genera and 3 taxa)	
Elaeagnus angustifolia L.	[15, 16]
	[20, 20]

Hippophae rhamnoides StLag. subsp. mongolica Rousi	6 7 10 11 12]
	6, 7, 10, 11, 13]
Hippophae rhamnoides StLag. subsp. turkestanica Rousi	[1/]
[≡ <i>Hippophae turkestanica</i> (Rousi) Tzvelev]	[14]
<b>50. Ericaceae</b> Durande (12 genera and 27 taxa)	
Arctostaphylos uva-ursi (L.) Spreng.	[2]
Arctous alpina (L.) Nied. [= Arbutus alpina L.]	[1, 3, 6, 10]
Cassiope ericoides D.Don	[4]
Chamaedaphne calyculata (L.) Moench	[1-3, 6, 7, 13]
Empetrum nigrum L. subsp. nigrum	[1, 2, 3, 4]
Empetrum nigrum subsp. sibiricum (V.N.Vassil.) Kuvaev	
$[\equiv Empetrum\ sibiricum\ V.N.Vassil.]$	[1, 2, 3, 4, 6, 7]
Moneses uniflora A.Gray	[1, 2, 4, 7]
Monotropa hypopitys L.	[1, 3, 4]
Orthilia obtusata (Turcz.) H.Hara [≡ Pyrola secunda var.	
obtusata Turcz.]	[1, 2, 3, 4, 6, 7]
Orthilia secunda (L.) House [ $\equiv Pyrola$ secunda L]	[1, 2, 3, 4, 7]
Phyllodoce caerulea (L.) Bab. [ $\equiv$ Andromeda caerulea L.]	[1]
Pyrola asarifolia subsp. incarnata (DC.) A.E.Murray	
$[\equiv Pyrola\ rotundifolia\ var.\ incarnata\ (DC.)\ A.P.Khokhr.]$	[1-7, 9]
Pyrola chlorantha Sw.	[1, 4]
Pyrola daurica Kom.	[1, 4, 5, 7, 9]
Pyrola media Sw.	[3, 4]
Pyrola minor L.	[2]
Pyrola rotundifolia L.	[1, 2, 3, 4, 7]
Rhododendron adamsii Rehder	[1, 3]
Rhododendron aureum Georgi	[1, 2]
Rhododendron dauricum L.	[1, 2, 3, 4, 5]
Rhododendron lapponicum (L.) Wahlenb.	[1, 2, 3]
Rhododendron ledebourii Pojark. [≡ Rhododendron dauricum s	ubsp.
ledebourii (Pojark.) Alexandrova & P.A.Schmidt]	[1, 3]
Rhododendron tomentosum Harmaja [ $\equiv$ Ledum palustre L.,	
= Ledum palustre var. decumbens Aiton]	[1, 2, 3, 4]
Vaccinium microcarpum (Turcz.) Schmalh.	
$[\equiv Oxycoccus\ microcarpus\ Turcz.]$	[1, 2]
Vaccinium myrtillus L. $[\equiv Vitis-idaea myrtillus (L.) Moench]$	[1, 2]
Vaccinium uliginosum L.	[1, 2, 3, 4, 6]
Vaccinium vitis-idaea L. [≡ Vitis-idaea vitis-idaea (L.) Britton]	[1, 2, 3, 4, 5, 6]
<b>51. Euphorbiaceae</b> Juss. (1 genus and 15 species)	
Euphorbia alpina C.A.Mey.	[7]
Euphorbia caesia Kar. & Kir.	[7]
	2 3

	Euphorbia esula L. [= Euphorbia discolor Ledeb.]	[1–5, 8, 9, 12]
	Euphorbia fischeriana Steud.	[4, 5, 9]
	Euphorbia humifusa Willd.	[3, 4, 7-16]
	Euphorbia kozlovii Prokh.	[8, 10, 12, 13, 16]
	Euphorbia macrorhiza Ledeb.	[6, 7]
	Euphorbia mongolica Prokh.	[3, 6, 7, 10–13]
	Euphorbia pachyrhiza Kar. & Kir.	[7]
	Euphorbia pilosa L.	[7]
	Euphorbia potaninii Prokh.	[3, 6, 7, 10, 13]
	Euphorbia soongarica Boiss. [≡ Galarhoeus soongaricus (Bo	oiss.) Prokh.] [7]
	Euphorbia subcordata C.A.Mey.	[3, 6, 7, 10, 14]
	Euphorbia tshuiensis (Prokh.) Serg.	[6, 7, 10]
	Euphorbia virgata Waldst. & Kit. [≡ Galarhoeus virgatus	
	(Waldst. & Kit.) Prokh.]	[4, 8]
	<b>F2 F1</b> 1: 11 (2) 1 220 . )	
	<b>52. Fabaceae</b> Lindl. (24 genera and 328 taxa)	[1/, 15, 1/]
	Alhagi maurorum Medik.	[14, 15, 16]
	Alhagi pseudalhagi subsp. kirghisorum (Schrenk) Yakovl.	[1 / 1 ]
CE	[= Alhagi sparsifolia Shap.]	[14, 15]
SE	Ammopiptanthus mongolicus (Maxim.) S.H.Cheng	[14, 15, 16]
SE	Astragalus admirabilus Pjak & E.Pjak	[7]
	Astragalus adsurgens Pall.	[1–13]
	Astragalus agrestis Douglas ex G.Don	[7, 10]
	Astragalus aksaicus Schischk.	[7]
SE	Astragalus alaschanus Bunge	[13]
	Astragalus alberti Bunge	[10, 11]
	Astragalus albicans Bong.	[14]
	Astragalus alpinus L.	[1, 2, 7, 9, 13]
	Astragalus altaicola Podlech	[6, 7, 14]
	Astragalus ammodytes Pall.	[10, 14]
	Astragalus ankylotus Fisch. & C.A.Mey.	[7, 14]
	Astragalus arcuatus Kar. & Kir.	[14]
	Astragalus argutensis Bunge	[4, 6, 7, 8]
	Astragalus arkalycensis Bunge	[6, 7, 14]
	Astragalus austro-sibiricus Schischk.	[1, 3, 6, 7, 8, 13]
SE	Astragalus baitagensis Sanchir	[14]
	Astragalus beketowii (Krassn.) B.Fedtsch.	[6]
	Astragalus borodinii Krasnob.	[7, 14]
	Astragalus brachybotrys Bunge	[6, 7, 10-14]
	Astragalus brevifolius Ledeb.	[1-4, 6-8, 10-13]
SE	Astragalus burtschumensis Sumnev.	[6, 7, 10]
	Astragalus candidissimus Ledeb.	[7, 14]
E	Astragalus chamonobrychis Podlech	[7]

E	Astragalus changaicus Sanchir [3, 7]
	Astragalus chinensis L.f. [5, 9]
SE	Astragalus chorinensis Bunge [= Astragalus pseudochorinensis N.Ulziykh.]
	[2, 3, 4]
E	Astragalus chubsugulicus Gontsch. ex N.Ulziykh. [1]
	Astragalus compressus Ledeb. [7]
	Astragalus confertus Benth. [3, 7]
	Astragalus consanguineus Bong. & C.A.Mey. [10]
	Astragalus contortuplicatus L. [14]
	Astragalus dahuricus Patrin [3–5, 8–10, 12]
	Astragalus danicus Retz. [1, 4]
	Astragalus depauperatus Ledeb. [3, 6, 7]
	Astragalus dilutus Bunge [3, 6, 7, 10, 12–14]
	Astragalus dschimensis Gontsch. [7, 14]
	Astragalus ellipsoideus Ledeb. [3, 6, 7, 10, 12, 14–16]
	Astragalus filiformis (DC.) Poir. $[\equiv Oxytropis filiformis DC.]$ [1–5, 7–11, 13]
	Astragalus follicularis Pall. [3]
	Astragalus frigidus A.Gray [1–3, 6, 7, 13]
	Astragalus fruticosus Pall. [2, 3, 4, 9, 13]
	Astragalus galactites Pall. [1–5, 8, 9]
	Astragalus glomeratus Ledeb. [3, 7, 13]
E	Astragalus gobicus Hanelt & Davaz. [14, 15]
E	Astragalus granitovii Sanchir [7, 14]
SE	Astragalus gregorii B. Fedtsch. & Basil. [7]
SE	Astragalus grubovii Sanchir [= Astragalus alaschanensis H.C.Fu] [7, 10–16]
SE	Astragalus grum-grshimailoi Palib. [7]
E	Astragalus gubanovii N.Ulziykh. [7, 10]
SE	Astragalus habaheensis Y.X.Liou [14]
SE	Astragalus hamiensis S.B.Ho [= Astragalus banzragczii N.Ulziykh.] [14]
SE	Astragalus hsinbaticus P.Y.Fu & Y.A.Chen
	[= Astragalus quasitesticulatus Barratte & Z.Y.Chu] [9]
	Astragalus hypogaeus Ledeb. [3, 6, 7, 10]
	Astragalus inopinatus Boriss. [1–5, 7–9, 13]
SE	Astragalus junatovii Sanchir [12, 13, 15, 16]
	Astragalus kasachstanicus Golosk. [7]
	Astragalus kaufmannii Krylov [1, 3]
E	Astragalus kenteicus N.Ulziykh. [2]
	Astragalus klementzii N.Ulziykh. [3]
E	Astragalus koslovii B.Fedtsch. & N.Basil. [13]
	Astragalus kurtschumensis Bunge [7, 10]
	Astragalus laguroides Pall. [= Astragalus gobi-altaicus N.Ulziykh.]
	[2-4, 6-8, 10-13]
	Astragalus lasiopetalus Bunge [7, 14]
	0 1 0

	Astragalus laxmannii Jacq.	[7, 10, 14]
	Astragalus lepsensis Bunge	[7]
	Astragalus leptostachys Pall. [= Astragalus macropterus DC	J.
	= Astragalus multicaulis Ledeb.]	[1, 3, 6, 7, 13]
SE	Astragalus lupulinus Pall.	[3, 4, 7, 11–14, 16]
SE	Astragalus luxurians Bunge	[7]
	Astragalus macrolobus M.Bieb.[= Astragalus macrocerus C	C.A.Mey.] [7, 10, 11]
	Astragalus macrotrichus E.Peter	[7, 10, 12, 14–16]
	Astragalus majevskianus Krylov	[7]
	Astragalus megalanthus DC.	[8, 12]
	Astragalus melilotoides Pall.	[2, 3, 4, 8–13, 16]
	Astragalus miniatus Bunge	[3, 4, 8, 9, 11–13]
	Astragalus mongholicus Bunge [= Astragalus membranaces	
	= Astragalus propinquus Schischk.]	[1–11, 13]
	Astragalus monophyllus Bunge	[6–16]
	Astragalus norvegicus Weber	[1,2]
SE	Astragalus ochrias Bunge	[12, 14, 15, 16]
OL	Astragalus onobrychis L.	[12, 11, 15, 10] $[10]$
	Astragalus ortholobus Bunge	[7]
	Astragalus oxyglottis Steven	[7, 14]
	Astragalus pallasii Spreng. [= Astragalus lasiophyllus Lede	
SE	Astragalus pavlovii B.Fedtsch. & Basil.	[13–16]
OL	Astragalus peterae Tsai & Yu	[6, 10]
	Astragalus physocarpus Ledeb.	[7]
SE	Astragalus politovii Krylov	[7]
SE	Astragalus polozhiae Timokhina	[6, 7]
SE	Astragalus pseudoborodinii S.B.Ho [= Astragalus baischintic	
OL.	Astragalus pseudobrachytropis Gontsch.	[6]
E	Astragalus pseudotesticulatus Sanchir	[7]
E	Astragalus pseudovulpinus Sanchir	[14]
L	Astragalus puberulus Ledeb. [≡ Craccina puberula (Ledeb	
	Tistragatus puberatus Ledeb. [- Cractina puberatu (Ledet	[7, 10, 11, 13, 14]
	Astragalus roseus Ledeb.	[7, 10, 11, 13, 14]
	Astragalus rudolffii N.Ulziykh.	[7, 14]
	Astragalus rytidocarpus Ledeb.	[2, 3, 7]
E	Astragalus sabuletorum Ledeb.	[7, 14, 15]
E E	Astragalus saichanensis Sanchir	[7, 13]
SE SE	Astragalus sanczirii N.Ulziykh.	[7, 14]
SE	Astragalus saralensis Gontsch.	[1]
	Astragalus scaberrimus Bunge	[2–4, 8, 9, 12]
	Astragalus scabrisetus Bong.	[15]
	Astragalus schanginianus Pall.	[7]
	Astragalus schrenkianus Fisch. & C.A.Mey.	[7]

	Astragalus scleropodius Ledeb.	[7]
	Astragalus secundus DC.	1 1 [1 2 12]
	[≡ Astragalus frigidus subsp. secundus (DC.) Voros	
	Astragalus sphaerocystis Bunge	[7]
	Astragalus stenoceras C.A.Mey.	[10]
	Astragalus suffruticosus DC.	[1-4, 7, 8, 13]
_	Astragalus sulcatus L.	[7, 10, 11, 13, 14]
E	Astragalus tamiricus N.Ulziykh.	[3]
	Astragalus tenuis Turcz. [≡ Astragalus melilotoides Pall.	
	tenuis (Turcz.) Ledeb.]	[1, 2, 3, 5, 8, 9]
	Astragalus tephrolobus Bunge	[7]
	Astragalus tibetanus Benth.	[7, 10, 11, 14, 15]
	Astragalus tschujensis Bunge	[7]
	Astragalus tulinovii B.Fedtsch.	[7]
SE	Astragalus tuvinicus Timokhina	[7, 14]
	Astragalus uliginosus L.	[1-5, 8]
E	Astragalus ulziykhutagii Sytin [= Astragalus alexandrii	N.Ulziykh.] [7]
	Astragalus urunguensis N.Ulziykh.	[14]
SE	Astragalus vallestris Kamelin	[3, 7, 10-14]
	Astragalus variabilis Bunge	[7, 11-16]
	Astragalus versicolor Pall. [= Astragalus alexandrii N.U	_
		[1, 2, 3, 4, 6]
E	Astragalus viridiflavus N.Ulziykh.	[1, 2, 3, 4]
	Astragalus xanthotrichos Ledeb.	[7]
SE	Astragalus yumenensis S.B.Ho	[14, 15]
SE	Astragalus zacharensis Bunge	[9]
	Astragalus zaissanensis Sumnev.	[7]
	Caragana arborescens Lam.	[1, 3, 10]
	Caragana brachypoda Pojark.	[12, 13, 16]
	Caragana bungei Ledeb.	[3, 6, 7, 10, 11, 13–15]
SE	Caragana davazamcii Sanchir [≡ Caragana korshinskii	var. <i>davazamcii</i> (Sanchir)
	Yakovlev]	[9, 11–13, 16]
E	Caragana gobica Sanczir	[7, 12, 13, 14]
	Caragana halodendron (Pall.) Dum.Cours.	
	$[\equiv Halimodendron\ halodendron\ (Pall.)\ Voss.]$	[7, 10, 14, 15]
	Caragana jubata Poir.	[1, 2, 3, 7, 13]
SE	Caragana korshinskii Kom.	[9, 11–13, 16]
	Caragana leucophloea Pojark.	[3, 4, 6–8, 10–16]
	Caragana microphylla Lam.	[2, 3, 4, 8, 9]
	Caragana pygmaea (L.) DC. [≡ Robinia pygmaea L.]	[1-14]
	Caragana spinosa (L.) Vahl	[4, 6–8, 10, 11, 14, 16]
	Caragana stenophylla Pojark.	[3–5, 8, 9, 12, 13]
SE	Caragana tibetica Kom.	[12, 13, 16]

	Chesneya ferganensis Korsh. [≡ Chesniella ferganensis (Korsh.) Boriss.] [15]
SE	Chesneya mongolica Maxim. [10–13, 15, 16]
SE	Chesniella macrantha (W.C.Cheng ) L.Duan, J.Wen & Zhao Y.Chang
	[= Spongiocarpella grubovii (N.Ulziykh.) Yakovlev] [15, 16]
	Cicer songaricum Steph. [7]
	Corethrodendron fruticosum (Pall.) B.H.Choi & H.Ohashi
	$[\equiv Hedysarum\ fruticosum\ Pall.]$ [3, 4, 5, 8–13, 16]
	Corethrodendron scoparium (Fisch. & C.A.Mey.) Fisch. & Basiner
	[≡ Hedysarum scoparium Fisch. & C.A.Mey.
	= Hedysarum arbuscula Maxim.] [15, 16]
	Glycyrrhiza aspera Pall. [10, 14]
	Glycyrrhiza glabra L. [= Glycyrrhiza alaschanica Grankina] [10, 12, 14, 15, 16]
SE	Glycyrrhiza inflata Batalin [7, 15, 16]
	Glycyrrhiza pallidiflora Maxim. [9]
SE	Glycyrrhiza squamulosa Franch. [12, 14]
	Glycyrrhiza uralensis Fisch. [= Glycyrrhiza gobica Grankina
	= Glycyrrhiza soongorica Grankina] [2–5, 8–16]
	Gueldenstaedtia monophylla Fisch. [6, 7, 10, 12, 13, 16]
	Gueldenstaedtia verna (Georgi) Boriss.
	[= Gueldenstaedtia stenophylla Bunge] [1, 2, 4, 5, 9]
	Hedysarum alpinum L. [ $\equiv$ Echinolobium alpinum (L.) Desv.] [1–7, 9]
	Hedysarum austrosibiricum B.Fedtsch.
	[≡ <i>Hedysarum hedysaroides</i> subsp. <i>austrosibiricum</i> (B.Fedtsch.) Jurtzev][3, 6, 7]
	Hedysarum brachypterum Bunge [2, 9]
SE	Hedysarum chalchorum N.Ulziykh. [3, 4, 8]
	Hedysarum consanguineum DC. [7]
	Hedysarum dahuricum Turcz. [≡ Hedysarum gmelinii var.
	dahuricum (Turcz.) R.Sha] [1, 3–10, 13]
	Hedysarum ferganense Korsh. [1–4, 6–11, 13, 14, 16]
	Hedysarum gmelinii Ledeb. [1–4, 6, 7, 9, 10, 13]
	Hedysarum hedysaroides subsp. arcticum (B.Fedtsch.) P.W.Ball
	$[\equiv Hedysarum \ arcticum \ B.Fedtsch.] $ [1, 3, 6, 7]
	Hedysarum iliense B.Fedtsch. [7]
	<i>Hedysarum inundatum</i> Turcz. [1–3, 6, 7, 10, 13]
	Hedysarum kamelinii N.Ulziykh. [7]
	Hedysarum krylovii Sumn. [7]
	Hedysarum lintschevskyi Bajtenov [7, 13]
	Hedysarum neglectum Ledeb. [1, 2, 3, 6, 7]
	Hedysarum roseum Sims $[2, 3, 4]$
	Hedysarum sajanicum N.Ulziykh. [1]
CE	
SE	Hedysarum sangilense Krasnob. & Timokhina [1, 3]
SE	

	<i>Lathyrus humilis</i> (Ser.) Fisch. [≡ <i>Orobus humilis</i> Ser.]	[1-5, 8, 9]
	Lathyrus ledebourii Trautv.	[7]
	Lathyrus palustris L. subsp. pilosus (Cham.) Hultén	[1-5, 8, 9, 10, 14]
	Lathyrus pisiformis L.	[5, 9]
	Lathyrus pratensis L.	[2, 3, 4, 10]
	Lathyrus quinquenervius (Miq.) Litv.	[3, 4, 5]
	Lespedeza bicolor Turcz.	[5]
	Lespedeza daurica (Laxm.) Schindl. [≡ Trifolium dauric	cum Laxm.]
		[2–5, 8, 9, 11–13, 16]
	Lespedeza juncea (L.f.) Pers.	[2-5, 8, 9]
	Lespedeza tomentosa Siebold	[5, 9]
	Lotus krylovii Schischk. & Serg.	[7, 9, 10, 12, 14–16]
	Medicago falcata L.	[2-12, 14]
	Medicago lupulina L.	[2–5, 7–11, 13, 14]
	Medicago platycarpa (L.) Trautv.	[1, 2, 3, 4, 7, 9]
	Medicago ruthenica Trautv.	[1–5, 8–11, 13, 14]
	Melilotus dentatus (Waldst. & Kit.) Pers.	[2–5, 7–12, 14]
	Melilotus officinalis (L.) Lam.	[2, 3, 4]
	Melilotus suaveolens Ledeb. [≡ Trigonella suaveolens (Lede	
		[1, 3-14]
	Melilotus wolgicus Poir.	[9, 12]
	Onobrychis arenaria (Kit.) DC. subsp arenaria	[2, 3, 4, 8]
	Onobrychis arenaria subsp. sibirica (Turcz.) P.W.Ball	
	[≡ Onobrychis sibirica (Sirj.) Turcz.]	[2, 3, 4, 13]
SE	Oxytropis acanthacea Jurtzev	[6, 7]
	Oxytropis aciphylla Ledeb.	[3, 6, 7, 10-16]
SE	Oxytropis alpestris Schischk.	[7]
	Oxytropis alpicola Turcz.	[2]
	Oxytropis alpina Bunge	[1, 2, 3, 6, 7, 13]
	Oxytropis altaica (Pall.) Pers.	[6, 7]
	Oxytropis ambigua (Pall.) DC.	[1, 2, 3, 4, 7, 13]
	Oxytropis ampullata (Pall.) Pers.	[2, 3, 7–9, 12, 13]
SE	Oxytropis baicalia (Pall.) Pers.	[1, 3, 4]
SE	Oxytropis bicolor Bunge	[9]
	Oxytropis brachycarpa Vassilcz.	[7]
E	Oxytropis bungei Kom.	[3, 6, 7, 8, 10–14]
	Oxytropis caerulea DC.	[1, 2, 4, 5, 9]
	Oxytropis caespitosa Pers.	[1, 2, 3, 4, 5, 8]
	Oxytropis campanulata Vassilcz.	[1,3]
	Oxytropis chionophylla Schrenk	[3, 6, 7, 13]
	Oxytropis deflexa (Pall.) DC.	[1–4, 6, 7, 10, 13]
	Oxytropis diantha Bunge [= Oxytropis changaica B.Fedi	
SE	Oxytropis dubia Turcz.	[2]
		[~]

SE	Oxytropis eriocarpa Bunge	[6, 7]
	Oxytropis falcata Bunge	[6,7]
E	Oxytropis fragilifolia N.Ulziykh.	[7, 13]
SE	Oxytropis gebleri Fisch.	[1, 3, 6, 7, 13]
	Oxytropis glabra DC.	[1-4, 6-16]
	Oxytropis glandulosa Turcz.	[1, 3]
	Oxytropis glareosa Vassilcz.	[3, 10]
	Oxytropis gorbunovii Boriss.	[3, 6, 7]
	Oxytropis grandiflora DC.	[2, 4, 5, 8, 9]
	Oxytropis hailarensis Kitag.	[5, 9]
SE	Oxytropis heterophylla Bunge	[6, 7, 10, 13, 14]
	Oxytropis hirta Bunge	[5]
SE	Oxytropis intermedia Bunge	[3, 6, 7, 10]
E	Oxytropis junatovii Sanchir	[13]
SE	Oxytropis jurtzevii Malyschev	[1]
E	Oxytropis klementzii N.Ulziykh.	[2, 3, 4, 8]
SE	Oxytropis komarovii Vassilcz.	[5, 9]
SE	Oxytropis kossinskyi B.Fedtsch. & Basil.	[3, 4, 8, 11, 13]
	Oxytropis krylovii Schipcz.	[7]
SE	Oxytropis kusnetzovii Kryl. & Steinb.	[1, 7]
	Oxytropis ladyginii Krylov	[7]
	Oxytropis lanata DC.	[1, 3, 4, 8, 9]
SE	Oxytropis lanuginosa Kom.	[3, 10]
	Oxytropis lapponica Gaudin	[3, 6, 7]
	Oxytropis lasiopoda Bunge	[3, 4, 8, 9, 13]
SE	Oxytropis latibracteata Jurtzev	[3]
E	Oxytropis lavrenkoi N.Ulziykh.	[12]
	Oxytropis leptophylla DC.	[1, 3–5, 8, 9, 12]
SE	Oxytropis leucotricha Turcz.	[1, 2, 3, 8]
	Oxytropis longirostra DC.	[1, 2, 3]
	Oxytropis macrosema Bunge	[6, 7]
SE	Oxytropis martjanovii Krylov	[3, 6, 7, 10]
E	Oxytropis micrantha Bunge	[3, 6, 7, 10, 11]
	Oxytropis microphylla (Pall.) DC.	[3, 6, 7, 10, 12]
SE	Oxytropis mixotriche Bunge	[2, 3, 4, 8]
SE	Oxytropis mongolica Kom.	[6, 10]
SE	Oxytropis monophylla Grubov	[12, 13]
	Oxytropis muricata (Pall.) DC.	[1, 3, 4, 9, 13]
	Oxytropis myriophylla (Pall.) DC.	[1-5, 8, 9]
SE	Oxytropis nitens Turcz.	[1, 2, 3, 4, 8, 9]
SE	Oxytropis ochrantha Turcz.	[9]
	Oxytropis oligantha Bunge	[3, 6, 7, 10, 13]
	Oxytropis oxyphylla (Pall.) DC.	[1-5, 8, 9, 12]

	Oxytropis pauciflora Bunge	[1, 6, 7, 13]
E	Oxytropis pavlovii B.Fedtsch. & Basil.	
SE	Oxytropis physocarpa Ledeb.	[7]
E	Oxytropis potaninii Bunge	[7, 10]
SE	Oxytropis prostrata (Pall.) DC.	[4, 8, 9]
SE	Oxytropis pseudoglandulosa Gontsch.	[1-4, 8, 9, 12, 13]
	Oxytropis puberula Boriss.	[7, 13, 14]
	Oxytropis pumila Fisch.	[3, 6, 7, 8, 10, 11, 13]
	Oxytropis racemosa Turcz. [= Oxytropi	
	Oxytropis recognita Bunge	[6, 7]
SE	Oxytropis reverdattoi Jurtzev	[2, 3, 4]
SE	Oxytropis rhizantha Palib.	[6, 7, 10]
	Oxytropis rhynchophysa Schrenk	[6, 7]
SE	Oxytropis sacciformis H.C.Fu	[12]
SE	Oxytropis sajanensis Jurtzev	[1, 3]
	Oxytropis saposhnikovii Krylov	[7, 10]
SE	Oxytropis selengensis Bunge	[2, 3, 4, 8, 9]
SE	Oxytropis setosa (Pall.) DC.	[3, 6]
	Oxytropis songorica (Pall.) DC.	[7]
	Oxytropis sordida (Willd.) Pers.	[1]
	Oxytropis squammulosa DC.	[2–4, 6–10, 12, 13]
SE	Oxytropis stenophylla Bunge	[3, 13]
	Oxytropis strobilacea Bunge	[1–4, 6, 7, 13]
SE	Oxytropis stukovii Palib.	[3, 9]
	Oxytropis sulphurea Ledeb.	[7]
E	Oxytropis sutaica N.Ulziykh.	[3, 7]
E	Oxytropis tenuis Palib.	[6, 7]
	Oxytropis teres DC.	[7]
	Oxytropis tragacanthoides Fisch.	[1, 3, 6–8, 10, 11, 13–15]
	Oxytropis trichophysa Bunge	[3, 6, 7, 10, 11, 13, 14]
SE	Oxytropis tschujae Bunge	[1,7]
SE	Oxytropis turczaninovii Jurtzev	[1, 3, 4]
E	Oxytropis ulzijchutagii Sanchir	[7]
SE	Oxytropis varlakovii Serg.	[4, 9]
E	Oxytropis viridiflava Kom.	[1-4, 7-9, 11, 13]
	Sophora alopecuroides L.	[12–16]
	Sophora flavescens Aiton	[5, 9]
	Sphaerophysa salsula (Pall.) DC.	[5, 7, 9–16]
	Thermopsis alpina Ledeb.	[1, 2]
SE	Thermopsis dahurica Czefr.	[2, 4, 5, 9, 12]
	Thermopsis lanceolata R.Br. [= Thermop	sis lanceolata var. glabra (Czefr.) Yakovlev]
_		[1–5, 8, 9, 11, 13]
E	Thermopsis longicarpa N.Ulziykh.	[6, 10]

	Thermopsis mongolica Czefr. [ $\equiv$ Thermopsis lanceolata var.	
	mongolica (Czefr.) Q.R.Wang & X.Y.Zhu]	[6, 7, 10–14, 16]
SE	Thermopsis przewalskii Czefr.	[9, 13]
	Trifolium eximium Steph.	[1-4, 6-11, 13]
	Trifolium lupinaster L.	[1–9]
	Trifolium pratense L.	[1, 4]
	Trifolium repens L.	[2, 7]
	Trigonella arcuata C.A.Mey.	[7, 14]
	Trigonella cancellata Desf.	[7, 14]
	Vicia amoena Fisch. [= Vicia amoena subsp. sericea (Kitag.)	)
	Kamelin & Gubanov]	[1-5, 7, 8, 9]
	Vicia amurensis Oett.	[4, 5, 9]
	Vicia costata Ledeb.	[2-4, 6-14, 16]
	Vicia cracca L.	[1-10, 14]
	Vicia geminiflora Trautv.	[3, 4, 5]
	Vicia japonica A.Gray	[2, 5]
	Vicia macrantha Jurtzev [= Vicia macrantha subsp. olchone	nsis Peschkova]
		[1, 2, 3]
	Vicia megalotropis Ledeb	[1-5, 8, 9]
	Vicia multicaulis Ledeb. [= Vicia nervata Sipliv.]	[1–6, 8, 13]
SE	Vicia olchonensis (Peschkova) O.D.Nikif. [≡ Vicia macrant	ha subsp. olchonensis
	Peschkova]	[1,4]
	Vicia pseudorobus Fisch. & C.A.Mey.	[5, 9]
	Vicia ramuliflora (Maxim.) Ohwi [= Vicia baicalensis (Ture	cz.) B.Fedtsch.]
		[2, 3, 4, 5]
	Vicia semenovii B.Fedtsch.	[3, 13]
	Vicia tenuifolia Roth	[3, 6, 7]
SE	Vicia tsydenii Malyshev	[4]
	Vicia unijuga A.Braun	[1–8]
	Vicia venosa Maxim.	[1, 2, 3, 4, 5, 8]
5	<b>33. Frankeniaceae</b> Desv. (1 genus and 2 species)	
	Frankenia pulverulenta L.	[10]
SE	Frankenia tuvinica Lomon.	[10]
5	<b>54. Gentianaceae</b> Juss. (8 genera and 32 taxa)	
_	Centaurium pulchellum subsp. meyeri (Bunge) Tzvelev	[7, 10, 13]
	Centaurium pulchellum (Sw.) Hayek subsp. pulchellum	[10, 11, 15]
	Comastoma falcatum (Turcz.) Toyokuni	[1, 6, 7, 13]
	Comastoma malyschevii (Zuev) Zuev [≡ Gentianella malysc	
	Comastoma pulmonarium (Turcz.) Toyokuni	[1, 2, 3, 6]
	Comastoma tenellum (Rottb.) Toyok. [≡ Gentiana tenella Rott	
	Gentiana algida Pall.	[1-3, 6, 7, 13]
	Genviana ang man 1 ans.	$[1 \ J, 0, /, 1J]$

	Gentiana aquatica L. subsp. aquatica	[1, 2, 3, 6, 7, 8]
	Gentiana aquatica var. pseudoaquatica (Kusn.) S.Agrawal	
	[≡ Gentiana pseudoaquatica Kusnezow]	[1–4, 6–9, 13]
	Gentiana dahurica Fisch. [≡ Dasystephana dahurica (Fisch.) Z	Zuev] [4, 5, 8, 9]
	Gentiana decumbens L.f. [≡ Dasystephana decumbens (L.f.) Zu	uev] [1–11, 13, 14]
	Gentiana grandiflora Laxm.	[1, 2, 3, 7]
	Gentiana leucomelaena Maxim. [≡ Ciminalis leucomelaena	(Maxim.) Zuev]
	[1-4, 7	7, 8, 10, 11, 13, 14]
	Gentiana macrophylla Pall.	[1–7, 9, 13, 14]
	Gentiana prostrata Haenke [1–4, 0	5–8, 10, 11, 13, 14]
	Gentiana karelinii Griseb. [≡ Gentiana prostrata var. kareli	nii (Griseb.) Kusn.]
	Gentiana riparia Kar. & Kir.	[7, 14]
	Gentiana squarrosa Ledeb. [≡ Ciminalis squarrosa (Ledeb.)	Zuev] [1–11]
	Gentiana triflora Pall.	[2, 4, 5]
	Gentiana uniflora Georgi	[1, 3, 6, 7]
	Gentianella amarella L. subsp. acuta (Michx.) J.M.Gillett	
	[≡ Gentiana acuta Michx.]	[1–4, 6–9, 13]
	Gentianella atrata (Bunge) Holub	[5]
	Gentianella aurea (L.) Harry Sm.	[2, 3, 6, 7, 13]
	Gentianella turkestanorum (Gand.) Holub	[7, 14]
	Gentianopsis barbata (Froel.) Ma	[1-11, 13, 14]
	Halenia corniculata (L.) Cornaz [≡ Swertia corniculata L.]	[1-5, 8, 13]
	Lomatogonium carinthiacum (Wulfen) Rchb.	
	[≡ <i>Swertia carinthiaca</i> Wulfen]	[1-4, 6-8, 11, 13]
	Lomatogonium rotatum Fr.	[1–8, 10, 13, 14]
	Swertia banzragczii Sanchir	[6, 7]
	Swertia dichotoma L. [≡ Anagallidium dichotomum (L.) Grisel	b.] [1, 2, 3, 4, 8, 9]
	Swertia marginata Schrenk [= Swertia komarovii Pissjauk.]	[1, 7]
	Swertia obtusa Ledeb.	[2, 6, 7]
55.	Geraniaceae Juss. (2 genera and 19 taxa)	
	Erodium cicutarium (L.) L'Hér.	[2, 4, 12]
	Erodium stephanianum Willd.	[2–5, 7–16]
	Erodium tibetanum Edgew. & Hook.f.	[4, 6, 7, 8, 10–16]
	Geranium affine Ledeb.	[6, 7, 14]
	Geranium albiflorum Ledeb.	[2, 3, 6, 7]
	Geranium amurense Tsyren.	[3, 4, 9]
	Geranium collinum Stephan	[7, 10, 14, 15, 16]
	Geranium dahuricum DC.	[1, 5, 6, 9, 10, 12]
	Geranium krylovii Tzvelev	[2, 3, 4]
	Geranium laetum Ledeb.	[3, 7, 14]
	Geranium pamiricum Ikonn.	[14]

Geranium platyanthum Duthie	[2, 3, 4, 5, 9, 12]
Geranium pratense L.	[1–4, 6–9, 12, 13]
Geranium pseudosibiricum J.Mayer	[1–8, 10, 14]
Geranium saxatile Kar. & Kir.	[7, 14]
	-5, 7–10, 12–14, 16]
Geranium transbaicalicum Serg.	[1,7, 9]
Geranium transbaicalicum subsp. turczaninovii (Serg.) Pe	eschkova [3, 4]
Geranium wlassovianum Fisch.	[1, 2, 3, 4, 5, 9]
<b>56. Grossulariaceae</b> DC. (1 genus and 12 taxa)	
Ribes aciculare Sm. [≡ Grossularia acicularis (Sm.) Spach]	[2-4, 6-8, 10, 13, 14]
Ribes diacanthum Pall. [=Ribes diacanthum f. weichangen	
J.X.Huang & J.Z.Wang]	[1-5, 8, 9]
Ribes fragrans Pall.	[1,2]
Ribes graveolens Bunge	[1, 7]
Ribes heterotrichum C.A.Mey.	[6, 7, 10, 14, 15]
Ribes meyeri Maxim.	[7, 14]
Ribes nigrum L.	[1–7, 10, 13]
Ribes petraeum Wulfen [= Ribes altissimum Turcz.]	[1-4, 6, 7, 14]
Ribes procumbens Pall.	[1, 3, 7]
Ribes pulchellum Turcz.	[1–5, 8, 9, 12, 14]
Ribes rubrum L.	[1-7, 9, 13]
Ribes spicatum E.Robson	[1-3, 6, 7, 9, 10]
<b>57. Haloragaceae</b> R.Br. (1 genus and 3 species)	
Myriophyllum sibiricum Kom.	[5]
Myriophyllum spicatum L.	[1-11, 14]
Myriophyllum verticillatum L.	[1–10, 14]
<b>58. Hydrocharitaceae</b> Juss. (2 genera and 5 species)	
Hydrilla verticillata (L.f.) Royle [≡ Serpicula verticillata ]	L.f.] [10]
Najas flexilis (Willd.) Rostk. & W.L.E.Schmidt [≡ Caulini	a flexilis Willd.] [10]
Najas marina L.	[10, 11]
Najas minor All.	[10]
Najas tenuissima (A.Braun) Magnus [≡ Caulinia tenuissima	a (A.Braun) Tzvelev]
	[10]
<b>59. Hypericaceae</b> Juss. (1 genus and 4 taxa)	
Hypericum ascyron L. subsp. ascyron	[2, 3, 4, 5]
Hypericum ascyron subsp. gebleri (Ledeb.) N.Robson	
[≡ Hypericum gebleri Ledeb.]	[2]
Hypericum attenuatum Choisy	[2, 3, 4, 5, 9]
Hypericum perforatum L.	[3, 6]

	<b>60. Iridaceae</b> Juss. (1 genus and 21 taxa)
SE	Iris bungei Maxim. [≡ Cryptobasis bungei (Maxim.) M.B.Crespo]
	[3, 5, 8, 9, 11–13, 16]
	<i>Iris dichotoma</i> Pall. [2, 4, 5, 8, 9]
	Iris glaucescens Bunge [6]
	Iris halophila Pall. [≡ Chamaeiris halophila (Pall.) M.B.Crespo] [6, 14]
	Iris humilis Georgi [= Iris flavissima Pall.] [1–5, 8, 9, 12, 13]
SE	Iris ivanovae Doronkin [2, 3]
SE	Iris kamelinii Alexeeva [1, 7]
	Iris lactea Pall. [ $\equiv$ Eremiris lactea (Pall.) Rodion.] [1–13, 15, 16]
	Iris loczyi Kanitz [7, 10]
	<i>Iris ludwigii</i> Maxim. [≡ <i>Xyridion ludwigii</i> (Maxim.) Rodion.] [7]
	Iris potaninii Maxim. [1–4, 6–13]
	Iris psammocola Y.T.Zhao [10]
SE	Iris pseudothoroldii Galanin [4]
	Iris ruthenica subsp. brevituba (Maxim.) Doronkin
	$[\equiv Iris\ ruthenica\ var.\ brevituba\ Maxim.]$ [1, 2]
	Iris ruthenica Ker Gawl. subsp. ruthenica [1, 2, 3, 4, 5]
E	Iris schmakovii Alexeeva [1]
	Iris sibirica L. [= Iris sanguinea Donn] [2, 4, 5, 9]
	Iris tenuifolia Pall. [7–15]
	Iris tigridia Bunge [1, 2, 3, 4, 8]
	Iris uniflora Pall. [ $\equiv$ Joniris uniflora (Pall.) M.B.Crespo] [4, 5]
	Iris ventricosa Pall. [≡ Cryptobasis ventricosa (Pall.) M.B.Crespo] [5, 9]
	<b>61. Juncaceae</b> Juss. (2 genera and 32 taxa)
	Juncus alpinoarticulatus subsp. fischerianus (V.I.Krecz.) Hämet-Ahti [1–10, 14]
SE	Juncus arcticus subsp. grubovii (Novikov) Novikov [≡ Juncus grubovii Novikov]
	[1,2,3]
	Juncus articulatus L. subsp. articulatus [4, 9, 14]
	Juncus articulatus subsp. limosus (Vorosch.) Vorosch. [≡ Juncus limosus Vorosch.]
	[3, 4, 5, 9]
	Juncus biglumis L. [1, 6, 7]
	Juncus bufonius L. [1–16]
	Juncus castaneus subsp. leucochlamys (V.I.Krecz.) Hultén
	$[\equiv Juncus\ leucochlamys\ V.I.Krecz.]$ [1–4, 6, 7, 9]
	Juncus castaneus subsp. triceps (Rostk.) Novikov [1–3, 6, 7, 13]
	Juncus compressus Jacq. [1, 3–5, 8–10, 13, 14]
	Juncus filiformis L. [7]
	<i>Juncus gerardi</i> Loisel [2–4, 6–10, 13–15]
	Juncus gracillimus (Buchenau) V.I.Krecz. & Gontsch. [2, 3, 5, 9]
	Juncus hybridus Brot. [= Juncus bufonius subsp. ambiguus (Guss.)
	Schinz & Thell.] [3, 4, 6, 7, 9–11, 13–15]

Juncus orchonicus Novikov	[2-5, 8, 9, 10]
Juncus persicus subsp. libanoticus (J. Thiébaut) Noviko	v & Snogerup
[= Juncus libanoticus J.Thiébaut]	[3, 4, 6, 7]
Juncus ranarius Songeon & E.P.Perrier [= Juncus bufor	nius subsp.
nastanthus (V.I.Krecz. & Gontsch.) Soó]	[10, 14]
Juncus salsuginosus Turcz.	[1-4, 6-8, 10-13, 15]
Juncus soranthus Schrenk	[3, 7]
Juncus triglumis L.	[1–4, 6, 7, 10, 13, 14]
Juncus turkestanicus V.I.Krecz. & Gontsch. [≡ Juncus	<i>bufonius</i> subsp.
turkestanicus (V.I.Krecz. & Gontsch.) Novikov]	[3-5, 7, 9, 10, 14]
Juncus virens Buchenau [ $\equiv$ Juncus papillosus var. virens	
(Buchenau) Vorosch.]	[4]
Luzula confusa Lindeb.	[1, 2, 6, 7]
Luzula multiflora (Ehrh.) Lej.	[3]
Luzula multiflora subsp. frigida (Buchenau) V.I.Krecz	. [7]
Luzula multiflora subsp. sibirica V.I.Krecz. [ $\equiv$ Luzula	sibirica (V.I.Krecz.)
V.I.Krecz.]	[1-4, 6, 7]
Luzula nivalis (Laest.) Spreng. [≡ Luzula campestris va	ar. <i>nivalis</i> Laest.] [1]
Luzula pallescens Sw.	[1-5, 7, 9]
Luzula parviflora Desv.	[1, 2, 3, 6, 7]
Luzula pilosa (L.) Willd. $[\equiv Juncus pilosus L.]$	[2]
Luzula rufescens var. macrocarpa Buchenau [= Luzula	changaica Novikov] [3]
Luzula spicata subsp. mongolica Novikov	[1-3, 6, 7, 13]
Luzula rufescens Fisch. var. rufescens	[1, 2, 3, 4]
<b>62. Juncaginaceae</b> Juss. (1 genus and 2 species)	
Triglochin maritima L.	[1–16]
Triglochin palustris L.	[1–9, 11–16]
<b>63. Lamiaceae</b> Martinov (22 genera and 103 taxa)	
Note: The herbarium records of Phlomis oreophila in Mo	ongolia was identified as
Phlmoides chinghoensis by Lazkov (2011).	
Amethystea caerulea L.	[2–11, 13]
Caryopteris mongholica Bunge [2	2–4, 7–9, 11–13, 15, 16]
Dracocephalum argunense Fisch.	[5]
Dracocephalum discolor Bunge	[3, 7, 10]
Dracocephalum foetidum Bunge	[1-4, 6-13]
Dracocephalum fragile Turcz.	[1, 3, 6, 7]
Dracocephalum fruticulosum Stephan	[3, 4, 6–8, 10–13, 16]
Dracocephalum grandiflorum L.	[1-3, 6, 7, 13]
Dracocephalum heterophyllum subsp. heterophyllum Be	enth. [3]
Dracocephalum heterophyllum subsp. ovalifolium A.L.I	Budantzev
$[\equiv Dracocephalum ovalifolium (A.L.Budantzev) \Gamma$	Doronkin] [3]

Dracocephalum imberbe Bunge	[1, 6, 7]
Dracocephalum integrifolium Bunge [≡ Ruyschiana in	
(Bunge) House]	[6, 7]
Dracocephalum junatovii A.L.Budantzev	[4, 9]
Dracocephalum moldavicum C.Morren	[12, 13, 15]
Dracocephalum nodulosum Rupr.	[12, 13, 15]
Dracocephalum nutans L.	[1, 2, 3, 4, 7]
Dracocephalum olchonense Peschkova	[1, 2, 3, 1, 7]
Dracocephalum origanoides Steph. subsp. origanoides	[1, 3, 4, 6-9, 13, 14]
Dracocephalum origanoides subsp. bungeanum	[1, 0, 1, 0 ), 10, 11]
(Schischk. & Serg. A.L.Budantzev	
[≡ <i>Dracocephalum bungeanum</i> Schischk. & Serg.	.] [1, 6, 7, 13]
Dracocephalum paulsenii Briq.	[14]
Dracocephalum peregrinum L.	[6, 7]
Dracocephalum pinnatum L.	[6]
Dracocephalum ruyschiana L.	[2, 3, 4, 5, 6, 8]
Elsholtzia ciliata (Thunb.) Hyl.	
Elsholtzia densa Benth.	[2, 4]
	[4, 13]
Galeopsis bifida Boenn. [ $\equiv$ Galeopsis tetrahit var. bifia	
Lej. & Courtois]	[2, 3, 4, 9]
Hyssopus ambiguus (Trautv.) Iljin	[7]
[= Hyssopus officinalis var. ambiguus Trautv.]	[/]
Hyssopus cuspidatus Boriss.	[7, 14]
Lagochilus bungei Benth.	[7, 14]
Lagochilus diacanthophyllus Benth.	[6, 7, 14]
Lagochilus ilicifolius Bunge	[3, 7, 8, 10–16]
Lagopsis darwiniana Pjak	[7]
Lagopsis eriostachya (Benth.) IkonnGal.	[1, 7, 10, 14]
Lagopsis flava Kar. & Kir.	[7]
Lagopsis marrubiastrum (Steph.) IkonnGal.	[3, 6, 7, 13, 14]
Lagopsis supina (Steph.) IkonnGal.	[2, 3, 4, 9]
Lamium album L.	[1, 2, 4, 5, 7, 9]
Leonurus deminutus V.I.Krecz. [≡ Leonurus glaucescer	
deminutus (V.I.Krecz.) Karav. ]	[1-4, 7, 8, 9, 13]
Leonurus glaucescens Bunge	[6, 7, 8, 9]
Leonurus mongolicus V.I.Krecz. & Kuprian.	[2-4, 6-9]
Leonurus pseudopanzerioides Krestovsk. [= Leonurus e	cardiaca subsp.
turkestanicus (V.I.Krecz. & Kuprian.) Rech.f.]	[7, 14]
Leonurus sibiricus L.	[1-5, 8, 9, 12]
Leonurus turkestanicus V.I.Krecz. & Kuprian.	[7]
Lophanthus chinensis Benth.	[1–4, 6–10, 12, 13]
Lophanthus krylovii Lipsky	[7]
Lycopus lucidus Turcz.	[9]

	Mentha aquatica L. [4]
	Mentha arvensis L. [2–10, 14]
	Mentha canadensis L. [2]
	Nepeta annua Pall. [≡ Schizonepeta annua (Pall.) Schischk.] [3, 6–16]
	Nepeta densiflora Kar. & Kir. [7, 14]
	Nepeta micrantha Bunge [7, 14]
	Nepeta multifida L. [1–5, 7–9, 13]
	Nepeta nuda L. [6]
	Nepeta pungens Benth. [14]
	Nepeta sibirica L. [2, 3, 6, 7, 10, 13, 14]
	Origanum vulgare L. [2, 3, 6, 7, 16, 13, 11]
	Panzerina canescens (Bunge) Soják [6, 7, 10, 13]
	Panzerina lanata (L.) Soják [ $\equiv$ Ballota lanata Willd.] [2, 3, 4, 6–14, 16]
	Phlomoides agraria (Bunge) Adylov [ $\equiv$ Phlomis agraria Bunge] [6, 7]
SE	
SE	Phlomoides chinghoensis (C.Y.Wu) Kamelin & Makhm. [≡ Phlomis chinghoensis C.Y.Wu] [7, 10, 14]
	Phlomoides molucelloides (Bunge) Salmaki
	[\int Eremostachys molucelloides Bunge] [6, 14]
	Phlomoides mongolica (Turcz.) Kamelin & A.L.Budantzev
	$[\equiv Phlomis\ mongolica\ Turcz.] $ [5, 9]
	Phlomoides pratensis (Kar. & Kir.) Adylov
	[\(\begin{align*}[c]{c} Phlomis pratensis \text{Kar. & Kir.]} \\ Indicates the polyment of the polyment
	Phlomoides tuberosa Moench [ $\equiv$ Phlomis tuberosa L.] [2–9]
	Phlomoides tuvinica (A.Schroet.) Kamelin [ $\equiv$ Phlomis tuvinica A.Schroet.]
	[6, 7, 8]  Salvia abnotancidas (Van) Sytoma [= Demonstria abnotancidas Van]
	Salvia abrotanoides (Kar.) Sytsma [≡ Perovskia abrotanoides Kar.] [6]
	Salvia deserta Schangin [6]
	Scutellaria altaica Ledeb. [7]
	Scutellaria baicalensis Georgi [1–5, 8, 9]
	Scutellaria dependens Maxim. [2, 4]
	Scutellaria galericulata L. [1–6, 9, 10, 14]
г.	Scutellaria grandiflora Sims subsp. grandiflora [2–4, 6, 7, 10, 13, 14]
E	Scutellaria grandiflora subsp. gymnosperma Kamelin & Gubanov [7, 13]
	Scutellaria krasevii Kom. & I.Schischk. [3]
	Scutellaria paulsenii Briq. [7]
	Scutellaria regeliana var. ikonnikovii (Juz.) C.Y.Wu & H.W.Li [2, 4]
	Scutellaria scordiifolia Fisch. [1–9]
	Scutellaria sieversii Bunge [6, 7]
	Scutellaria supina L. $[\equiv$ Scutellaria alpina subsp. supina (L.) I.Richardson] [7, 14]
	Scutellaria tuvensis Juz. [≡ Scutellaria grandiflora subsp. tuvensis
	(Juz.) Kamelin & Gubanov] [10]
	Scutellaria viscidula Bunge [9]

	Stachys aspera subsp. baicalensis (Fisch.) Krestovsk.	
	[≡ Stachys baicalensis Fisch.]	[2, 3, 4, 5]
	Stachys palustris L.	[2-6, 9, 10]
	Thymus altaicus Klokov & DesShost.	[3, 6, 7, 10]
	Thymus baicalensis Serg.	[1, 2, 3, 4, 10]
	Thymus bituminosus Klokov	[1]
	Thymus dahuricus Serg.	[2, 4, 5, 8, 9]
E	Thymus gobi-altaicus (N.Ulziykh.) Kamelin & A.L.Budantzev	[13]
	Thymus gobicus Tscherneva	[2, 3, 4, 7-13]
	Thymus komarovii Serg.	[9]
	Thymus michaelis Kamelin & A.L.Budantzev	[2, 4, 8, 9]
	Thymus minussinensis Serg.	[10]
	Thymus mongolicus (Ronniger) Ronniger	[3, 7, 9, 13]
	Thymus narymensis Serg.	[7]
	Thymus pavlovii Serg.	[1, 3]
	Thymus roseus Schipcz.	[7]
	Thymus sibiricus Klokov & DesShost.	[4]
	Thymus turczaninovii Serg.	[9]
	Ziziphora clinopodioides Lam. subsp. clinopodioides	[7, 14]
	Ziziphora clinopodioides subsp. bungeana (Juz.) Rech.f.	
	[≡ Ziziphora bungeana Juz.]	[6, 7, 13]
	Ziziphora pamiroalaica Juz.	[7, 14]
	<b>64.</b> Lentibulariaceae Rich. (2 genera and 7 species)	
	Pinguicula alpina L.	[1]
	Pinguicula alpina L. Pinguicula vulgaris L.	[1] [1]
	Pinguicula alpina L.	
	Pinguicula alpina L. Pinguicula vulgaris L.	[1]
	Pinguicula alpina L. Pinguicula vulgaris L. Utricularia australis R.Br.	[1]
	Pinguicula alpina L. Pinguicula vulgaris L. Utricularia australis R.Br. Utricularia intermedia Hayne [≡ Lentibularia intermedia	[1] [10, 14]
	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]	[1] [10, 14] [1, 2, 3, 6]
	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino	[1] [10, 14] [1, 2, 3, 6] [10] [3, 9, 10, 14]
	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]	[1] [10, 14] [1, 2, 3, 6] [10] [3, 9, 10, 14]
	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)	[1] [10, 14] [1, 2, 3, 6] [10] [3, 9, 10, 14] [1–11, 14, 15]
CE	<ul> <li>Pinguicula alpina L.</li> <li>Pinguicula vulgaris L.</li> <li>Utricularia australis R.Br.</li> <li>Utricularia intermedia Hayne [≡ Lentibularia intermedia (Hayne) Nieuwl. &amp; Lunell]</li> <li>Utricularia × japonica Makino</li> <li>Utricularia minor L.</li> <li>Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]</li> <li>65. Liliaceae Juss. (5 genera and 15 taxa)</li> <li>Erythronium sibiricum (Fisch. &amp; C.A.Mey.) Krylov</li> </ul>	[1] [10, 14] [1, 2, 3, 6] [10] [3, 9, 10, 14] [1–11, 14, 15]
SE	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)  Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov  Fritillaria dagana Turcz.	[1] [10, 14] [10, 14] [10, 14] [10] [10] [10] [10] [10] [10] [10] [10
SE	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)  Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov  Fritillaria dagana Turcz.  Gagea brevistolonifera Levichev	[1] [10, 14]  [10, 14]  [10, 14]  [10] [10] [10] [10] [10] [10] [10] [1
SE	<ul> <li>Pinguicula alpina L.</li> <li>Pinguicula vulgaris L.</li> <li>Utricularia australis R.Br.</li> <li>Utricularia intermedia Hayne [≡ Lentibularia intermedia (Hayne) Nieuwl. &amp; Lunell]</li> <li>Utricularia × japonica Makino</li> <li>Utricularia minor L.</li> <li>Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]</li> <li>65. Liliaceae Juss. (5 genera and 15 taxa)</li> <li>Erythronium sibiricum (Fisch. &amp; C.A.Mey.) Krylov</li> <li>Fritillaria dagana Turcz.</li> <li>Gagea brevistolonifera Levichev</li> <li>Gagea filiformis Merckl.</li> </ul>	[1] [10, 14] [10, 14] [10, 14] [10] [10] [10] [10] [10] [10] [10] [10
SE	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia  (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)  Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov  Fritillaria dagana Turcz.  Gagea brevistolonifera Levichev  Gagea filiformis Merckl.  Gagea granulosa Turcz.	[1] [10, 14] [10, 14] [10, 14] [10] [10] [10] [10] [10] [10] [10] [10
	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)  Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov  Fritillaria dagana Turcz.  Gagea brevistolonifera Levichev  Gagea filiformis Merckl.  Gagea granulosa Turcz.  Gagea hiensis Pasch. [≡ Gagea terraccianoana Pasch.]	[1] [10, 14] [10, 14] [10, 14] [10] [10] [10] [10] [10] [10] [10] [10
SE SE	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)  Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov  Fritillaria dagana Turcz.  Gagea brevistolonifera Levichev  Gagea filiformis Merckl.  Gagea granulosa Turcz.  Gagea hiensis Pasch. [≡ Gagea terraccianoana Pasch.]  Gagea kuraiensis Levichev	[1] [10, 14] [10, 14] [10, 14] [10] [10] [10] [10] [10] [10] [10] [10
	Pinguicula alpina L.  Pinguicula vulgaris L.  Utricularia australis R.Br.  Utricularia intermedia Hayne [≡ Lentibularia intermedia (Hayne) Nieuwl. & Lunell]  Utricularia × japonica Makino  Utricularia minor L.  Utricularia vulgaris L. [≡ Lentibularia vulgaris (L.) Moench]  65. Liliaceae Juss. (5 genera and 15 taxa)  Erythronium sibiricum (Fisch. & C.A.Mey.) Krylov  Fritillaria dagana Turcz.  Gagea brevistolonifera Levichev  Gagea filiformis Merckl.  Gagea granulosa Turcz.  Gagea hiensis Pasch. [≡ Gagea terraccianoana Pasch.]	[1] [10, 14] [10, 14] [10, 14] [10] [10] [10] [10] [10] [10] [10] [10

Gagea pauciflora Turcz.	[1-5, 7, 9, 14]
Gagea serotina (L.) Ker Gawl. $[\equiv Lloydia\ serotina\ (L.)\ Salisb.]$	[1-3, 6, 7, 13]
Lilium concolor var. partheneion (Siebold & de Vriese) Baker	
[= Lilium buschianum G.Lodd.]	[5]
Lilium martagon L.	[1–7]
Lilium pensylvanicum Ker Gawl. [= Lilium dauricum Ker Gav	vl.] [2, 4, 5]
Lilium pumilum Redouté [= Lilium potaninii Vrishcz]	[1-5, 8, 9, 12]
Tulipa uniflora (L.) Besser	[3, 5, 7–10, 14]
<b>66. Linaceae</b> DC. (1 genus and 5 species)	
Linum altaicum Ledeb.	[1, 6, 7, 8, 9]
Linum baicalense Juz.	[1-5, 7-9, 13]
Linum pallescens Bunge [2–	5, 7–10, 13, 14]
Linum perenne L.	[7, 14]
Linum violascens Bunge	[7]
<b>67. Lythraceae</b> J.StHil. (1 genus and 3 species)	
Lythrum salicaria L.	[4]
Lythrum virgatum L.	[6, 14]
Lythrum borysthenicum (Schrank) Litv. [ $\equiv Peplis borysthenica S$	Schrank]
	[10]
<b>68. Malvaceae</b> Juss. (2 genera and 5 species)	
Abutilon theophrasti Medik.	[15]
Malva neglecta Wallr	[4, 7, 10, 11, 14]
Malva pusilla Sm.	[13, 14, 15]
Malva sylvestris L.	[13, 15]
Malva verticillata L. [1	<b>-4</b> , 7, 8, 10, 16]
<b>69. Mazaceae</b> Reveal (3 genera and 3 species)	
Note: Mazaceae was separated from Phrymaceae according to AP	G IV (2016).
Dodartia orientalis L.	[6, 7, 14]
Lancea tibetica Hook.f. & Thomson	[1, 3]
Mazus stachydifolius Maxim.	[5]
<b>70. Melanthiaceae</b> Batsch (3 genera and 5 species)	
Anticlea sibirica (L.) Kunth [≡ Zigadenus sibiricus (L.) A.Gray	[1,3]
Paris quadrifolia L.	[2, 3, 4, 5]
Paris verticillata M.Bieb.	[2, 4, 5]
Veratrum lobelianum Bernh.	[1, 3, 4, 5, 7, 9]

71. Menispermaceae Juss. (1 genus and 1 species)  Menispermum dauricum DC.	[2, 3, 4, 5]
72. Menyanthaceae Dumort. (2 genera and 2 species) Nymphoides peltata (S.G.Gmel.) Kuntze Menyanthes trifoliata L.	[1, 3, 8–10, 14] [1, 2, 3, 4]
73. Molluginaceae Bartl. (1 genus and 1 species)  Hypertelis cerviana (L.) Thulin [≡ Mollugo cerviana (L.) S	Ser.] [12, 14, 15]
74. Montiaceae Raf. (1 genus and 1 species)  Claytonia joanneana Roem. & Schult.	[1, 2, 3, 4, 6, 7]
75. Nitrariaceae Lindl. (2 genera and 5 species)  Nitraria roborowskii Kom. [≡ Nitraria schoberi var. robor	owskii
(Kom.) Grubov]	[7, 10, 13, 14, 15]
Nitraria sibirica Poir.	[4, 6–16]
Nitraria sphaerocarpa Maxim.	[13, 15, 16]
Peganum harmala L. [= Peganum multisectum (Maxim.)	
1 eganum isai maaa 2. [- 1 eganum muuseevum (iviaxiiii.)	[7, 10, 13, 14, 15]
Peganum nigellastrum Bunge	[3, 4, 8–13, 16]
Note: Recently, this family was revised based on field obser	vations and extensive
herbarium specimens in Mongolia (Baasanmunkh et al. 2022 na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.	2b). Nymphaea tetrago-
na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.	2b). <i>Nymphaea tetrago</i> -munkh et al (2022b). [1, 3, 10, 11]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC.</li> <li>Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa)</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew.</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum]</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] L.]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew.</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] L.]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum]</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] L.]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum]</li> </ul>	(2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] [4] [7] [4] [7]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC.     Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa)     Circaea alpina L. subsp. alpina     Circaea alpina subsp. caulescens (Kom.) Tatew.     Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium L.</li> </ul>	(2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] [4] [7] [1–9, 14]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium Epilobium ciliatum Raf.</li> </ul>	(2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] [4] [1–9, 14] [2] [2, 3, 4, 11]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium Epilobium ciliatum Raf. Epilobium davuricum Fisch. Epilobium fastigiato-ramosum Nakai [= Epilobium baical.</li> </ul>	(2b). Nymphaea tetrago- munkh et al (2022b). [1, 3, 10, 11] [1, 3, 7, 10, 11] [2, 3, 4, 5] [3] [4] [1–9, 14] [2] [2, 3, 4, 11]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC.     Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa)     Circaea alpina L. subsp. alpina     Circaea alpina subsp. caulescens (Kom.) Tatew.     Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium Epilobium ciliatum Raf.     Epilobium davuricum Fisch.</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b).  [1, 3, 10, 11]  [1, 3, 7, 10, 11]  [2, 3, 4, 5]  [3]  L.]  [7]  [1–9, 14]  [2]  [2, 3, 4, 11]  [2]  [2, 3, 4, 11]  [3, 6]  Sweet]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium Epilobium ciliatum Raf. Epilobium ciliatum Raf. Epilobium fastigiato-ramosum Nakai [= Epilobium baicale Epilobium hirsutum L. Epilobium latifolium L. [= Chamaenerion latifolium (L.)</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b).  [1, 3, 10, 11]  [1, 3, 7, 10, 11]  [2, 3, 4, 5]  [3]  L.]  [7]  am (L.) Schur]  [1–9, 14]  [2]  [2, 3, 4, 11]  ense Popov]  [3, 4, 9]  [3, 6]  Sweet]  [1–3, 6, 7, 13, 14]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium Epilobium ciliatum Raf. Epilobium ciliatum Raf. Epilobium fastigiato-ramosum Nakai [= Epilobium baicala Epilobium hirsutum L. Epilobium latifolium L. [= Chamaenerion latifolium (L.)</li> <li>Epilobium minutiflorum Hausskn.</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b).  [1, 3, 10, 11]  [1, 3, 7, 10, 11]  [2, 3, 4, 5]  [3]  L.]  [7]  [1–9, 14]  [2]  [2, 3, 4, 11]  [2]  [2, 3, 4, 11]  [3, 6]  Sweet]  [1–3, 6, 7, 13, 14]  [7, 10, 15]
<ul> <li>na Georgi is not recorded in Mongolia, according to Baasan Nuphar pumila (Timm) DC. Nymphaea candida J.Presl.</li> <li>77. Onagraceae Juss. (2 genera and 12 taxa) Circaea alpina L. subsp. alpina Circaea alpina subsp. caulescens (Kom.) Tatew. Epilobium anagallidifolium Lam. [= Epilobium alpinum Epilobium angustifolium L. [≡ Chamaenerion angustifolium Epilobium ciliatum Raf. Epilobium ciliatum Raf. Epilobium fastigiato-ramosum Nakai [= Epilobium baicale Epilobium hirsutum L. Epilobium latifolium L. [= Chamaenerion latifolium (L.)</li> </ul>	2b). Nymphaea tetrago- munkh et al (2022b).  [1, 3, 10, 11]  [1, 3, 7, 10, 11]  [2, 3, 4, 5]  [3]  L.]  [7]  am (L.) Schur]  [1–9, 14]  [2]  [2, 3, 4, 11]  ense Popov]  [3, 4, 9]  [3, 6]  Sweet]  [1–3, 6, 7, 13, 14]

<b>78. Orchidaceae</b> Juss. (14 genera and 26 taxa)	
	Ish at al. (2021b)
Note: Orchids of Mongolia were recently revised by Baasanmun	
Calypso bulbosa (L.) Oakes [= Cypripedium bulbosum L.]	[2, 4]
Corallorhiza trifida Châtel.	[1, 2, 4]
Cypripedium calceolus L	[1, 2, 4]
Cypripedium guttatum Sw.	[1, 2, 3, 4, 5]
Cypripedium macranthos Sw.	[1, 2, 4, 5]
Cypripedium <b>x</b> ventricosum Sw.	[2]
Dactylorhiza fuchsii (Druce) Soó	[2,4]
Dactylorhiza incarnata (L.) Soó	[3, 5]
Dactylorhiza incarnata subsp. cruenta (O.F.Müll.) P.D.Sell	[3]
Dactylorhiza salina (Turcz.) Soó	[1-11, 14]
	1, 3, 4, 7, 10, 14]
Dactylorhiza viridis (L.) R.M.Bateman [= Coeloglossum viride (I	L.) Hartm.] [1–7]
Epipogium aphyllum Sw.	[1, 2, 3, 4]
Goodyera repens (L.) R.Br.	[1, 2, 3, 4, 6]
Gymnadenia conopsea (L.) R.Br. [≡ Orchis conopsea L.]	[1–5]
Herminium alaschanicum Maxim. [≡ Peristylus alaschanicus	
(Maxim.) N.Pearce & P.J.Cribb]	[16]
Herminium monorchis R.Br.	[1-5, 8, 9, 10]
Malaxis monophyllos (L.) Sw. $[\equiv Ophrys monophyllos L.]$	[1, 2, 3, 4, 5]
Neottia camtschatea Sprengel	[1, 2, 3, 7]
Neottia puberula (Maxim.) Szlach. [≡ Listera puberula Maxir	n.] [5]
Orchis militaris L.	[3, 4]
Platanthera bifolia (L.) Rich.	[1, 2, 3, 4]
Platanthera fuscescens Kraenzl.	[2, 3, 4, 5]
Platanthera oligantha Turcz.	[1, 3]
Ponerorchis cucullata (L.) X.H.Jin [ $\equiv$ Neottianthe cucullata (L	) Schltr.]
	[1, 2, 3, 4]
Spiranthes australis Lindl.	[2-5, 8, 9, 10]
<b>79. Orobanchaceae</b> Vent. (9 genera and 57 taxa)	
Boschniakia rossica (Cham. & Schltdl.) B.Fedtsch.	[2]
Castilleja pallida (L.) Spreng.	[1–9, 13]
Cistanche deserticola Ma	[7, 10–16]
Cistanche feddeana K.S.Hao	[9, 12, 13, 16]
Cistanche lanzhouensis Zhi Y.Zhang	[12]
Cistanche salsa (C.A.Mey.) Beck	[12–16]
Cymbaria daurica L.	[2-5, 7-13]
Euphrasia altaica Serg.	[7]
Euphrasia hirtella Jord.	[2, 3, 4, 5]
Euphrasia maximowiczii Wettst.	[2, 4, 5, 9]
Euphrasia pectinata Ten.	[1–10, 13, 14]
Euphrasia schischkinii Serg.	[7]
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	Euphrasia syreitschikovii Govor.	[1, 2, 3, 5-8]
	Odontites vulgaris Moench	[2-4, 7-11, 14]
	Orobanche amoena C.A.Mey.	[7, 14]
	Orobanche caesia Rchb. [= Phelypaea lanuginosa C.A.Mey.	
	≡ Orobanche lanuginosa (C.A.Mey.) Beck]	[1, 2, 3, 4]
	Orobanche cernua Loefl.	[7, 10, 13, 14]
	Orobanche coerulescens Steph. [= Orobanchella coerulescens	
	(Steph.) Piwow.]	[5, 7–15]
	Orobanche coerulescens var. albiflora Kuntze [= Orobanche	korshinskyi
	Novopokr.]	[1–15]
	Orobanche pycnostachya Hance	[5]
	Pedicularis abrotanifolia M.Bieb.	[1, 3, 6, 7, 13, 14]
	Pedicularis achilleifolia Steph.	[1, 3, 6–8, 10, 14]
	Pedicularis altaica Steph.	[6, 7, 10, 14]
	Pedicularis amoena Adams	[1–3, 6, 7, 13, 14]
	Pedicularis anthemifolia Fisch.	[1, 3, 6, 7, 13]
	Pedicularis compacta Steph.	[1, 2, 3, 6, 7]
	Pedicularis dolichorrhiza Schrenk	[7, 14]
	Pedicularis elata Willd.	[3, 6, 7]
SE	Pedicularis fetisowii Regel	[14]
	Pedicularis fissa Turcz.	[2, 7]
	Pedicularis flava Pall.	[2-4, 6-11, 13-15]
SE	Pedicularis incarnata L.	[1]
	Pedicularis labradorica Wirsing	[1, 2, 3, 4]
	Pedicularis lapponica L.	[1]
	Pedicularis lasiostachys Bunge	[3, 6, 7]
	Pedicularis longiflora Rudolph	[1, 2, 3, 7, 11]
	Pedicularis moschata Maxim.	[6, 7, 10]
	Pedicularis myriophylla Pall.	[1-4, 6-8, 13]
	Pedicularis oederi Vahl	[1, 2, 3, 6, 7]
	Pedicularis palustris L. subsp. karoi (Freyn) P.C.Tsoong	
	[≡ <i>Pedicularis karoi</i> Freyn]	[1–6, 8, 9, 10, 14]
	Pedicularis physocalyx Bunge	[7]
	Pedicularis proboscidea Steven	[7]
	Pedicularis resupinata L.	[1–6, 8–10, 13]
	Pedicularis rhinanthoides Schrenk	[7]
	Pedicularis rubens Steph.	[1, 2, 3, 4, 5]
	Pedicularis sceptrum-carolinum L.	[2, 3, 4, 5, 7]
	Pedicularis sibirica Vved.	[1, 3, 7]
	Pedicularis spicata Pall.	[3, 4, 5]
	Pedicularis striata Pall.	[1-5, 8, 9]
	Pedicularis sudetica Willd.	[1, 2]
	Pedicularis tristis L	[1, 2, 3, 6, 7, 8]

Pedicularis uliginosa Bunge Pedicularis venusta Schangin	[1-4, 6, 7, 10, 13] [1-4, 6-11]
Pedicularis verticillata L.	[1, 2, 3, 4, 5, 9]
Pedicularis wlassoviana Steven	[2]
Rhinanthus serotinus Oborny	[2]
Rhinanthus songaricus (Sterneck) B.Fedtsch. $[\equiv Rhinanth$	us borbasii
(Dörf.) Soó subsp. songaricus (Sterneck) Soó]	[2, 3, 4]
80. Oxalidaceae R.Br. (1 genus and 1 species)	
Oxalis acetosella L.	[1, 2]
81. Paeoniaceae Raf. (1 genus and 3 species)	
Paeonia anomala L.	[1, 2, 3, 4, 6, 7]
Paeonia intermedia C.A.Mey.	[6, 7]
Paeonia lactiflora Pall.	[2, 4, 5, 9]
<b>82. Papaveraceae</b> Juss. (6 genera and 30 species)	
Chelidonium majus L.	[1-5, 7, 9]
Corydalis adunca Maxim.	[6, 7, 13, 14, 15]
Corydalis capnoides Pers.	[2, 6, 7, 9, 14]
Corydalis grubovii Mikhailova	[6, 7]
Corydalis impatiens Fisch.	[1, 2, 3, 7]
Corydalis inconspicua Bunge	[1, 2, 6, 7]
Corydalis pauciflora Pers.	[1, 2, 6, 13]
Corydalis sajanensis Peschkova [≡ Corydalis pauciflora subs	
sajanensis (Peschkova) Mikhailova]	[1]
Corydalis schanginii (Pall.) B.Fedtsch.	[7, 14]
Considelia stricta Standa [ Considelia gradanii Milabailare]	[1-4, 6-8, 10, 13]
Corydalis stricta Steph. [= Corydalis grubovii Mikhailova] Fumaria officinalis L.	[6, 7, 13] [7]
Fumaria schleicheri SoyWill.	[7, 14]
Glaucium elegans Fisch. & C.A.Mey.	[14]
Glaucium squamigerum Kar. & Kir.	[7, 14]
Hypecoum erectum L.	[2–5, 8, 9, 11, 12]
Hypecoum lactiflorum (Kar. & Kir.) Pazii	[3, 4, 6–16]
Hypecoum leptocarpum Hook.f. & Thomson	[3]
Papaver baitagense Kamelin & Gubanov	[6, 7, 14]
Papaver canescens Tolm.	[1-7, 13]
Papaver chakassicum Peschkova	[6, 7]
Papaver lapponicum (Tolm.) Nordh.	[7]
Papaver nudicaule L.	[1-7, 9, 13]
Papaver pseudocanescens Popov	[1, 3, 6, 7, 13]
Papaver pseudotenellum Grubov	[7, 10, 13, 14]

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	$D_{AB} = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2} $
	Papaver refractum (DC.) KF.Günther [≡ Roemeria refracta DC.] [3, 14]
SE	Papaver rubroaurantiacum (Fisch.) C.E.Lundstr. [1–10, 13]
SE	Papaver saichanense Grubov [≡ Papaver rubroaurantiacum subsp. saichanense (Grubov) Kamelin & Gubanov] [7, 13]
	Papaver smirnovii Peschkova [ $\equiv$ Papaver rubroaurantiacum subsp.
	smirnovii (Peschkova) Kamelin & Gubanov] [4, 9]
	Papaver setosum (Tolm.) Peschkova [ $\equiv$ Papaver rubroaurantiacum subsp.
	setosum Tolm.] [4]
	83. Phyllanthaceae Martinov (1 genus and 1 species)
	Flueggea suffruticosa Baill. [5, 9]
	84. Plantaginaceae Juss. (7 genera and 47 species)
	Callitriche hermaphroditica L. [1, 3, 4, 5]
	Callitriche palustris L [1–5, 7, 9–11, 14]
	Hippuris vulgaris L. [1–11, 13, 14]
	Lagotis integrifolia (Willd.) Schischk. [1, 2, 3, 7, 13]
	Linaria acutiloba Fisch. [≡ Linaria vulgaris Mill. subsp. acutiloba
	(Fisch.) D.Y.Hong] [1–4, 6–8, 13, 14]
	Linaria altaica Fisch. [3, 6, 7, 10, 14]
	Linaria buriatica Turcz. [1–6, 8, 9]
	Linaria debilis Kuprian. [7, 14]
	Linaria hepatica Bunge [6, 7, 11, 13, 14]
	Linaria incompleta Kuprian. [7]
	Linaria melampyroides Kuprian. [3, 4, 5, 7, 9]
	Linaria pedicellata Kuprian. [6, 7, 10, 13, 14]
	Plantago arachnoidea Schrenk [= Plantago lorata (J.Z.Liu) Shipunov
	≡ Plantago arachnoidea var. lorata J.Z.Liu] [14]
	Plantago cornuti Gouan [2, 9, 10]
	Plantago depressa Willd. [1–10, 12, 13]
	Plantago komarovii Pavlov [1, 3, 6, 7, 13]
	Plantago major L. [2–14]
	Plantago maritima subsp. ciliata Printz [= Plantago salsa Pall.] [1–6, 8–11, 13, 14]
	Plantago minuta Pall. [3, 7, 8, 10–15]
	Plantago polysperma Kar. & Kir. [10, 13, 15]
	Plantago urvillei Opiz [2]
	Veronica anagallis-aquatica L. [1–4, 7–16]
	Veronica anagalloides Guss. [10]
	Veronica arenosa (Serg.) Boriss. [= Veronica laeta auct. non Kar. & Kir.]
	[2, 3, 6, 7, 8, 14] Venoming handburged I
	Veronica beccabunga L. [3, 7, 8] Veronica biloba Schreb. [3, 6, 7, 14, 15]
	Veronica oliota Scilieb. [5, 6, 7, 14, 15]  Veronica ciliata Fisch. [1, 2, 3, 6, 7]
	veronica cinata 178cm. [1, 2, 3, 0, /]

	Veronica daurica Steven	[2, 4, 5, 8, 9]
	Veronica densiflora Ledeb.	[2, 7]
	Veronica ferganica Popov	[6, 7, 14]
	Veronica hispidula Boiss. & Huet [= Veronica pusilla Ho	ohen. & Boiss.] [7]
	Veronica incana L.	[1–11, 13]
	Veronica krylovii Schischkin	[9]
	Veronica linariifolia Link	[1–5, 8, 9]
	Veronica longifolia L.	[1–4, 6, 7, 9, 10]
	Veronica macrostemon Bunge	[1, 7]
	Veronica oxycarpa Boiss. [≡ Veronica anagallis-aquatica s oxycarpa (Boiss.) A. Jelen]	
	Veronica pinnata subsp. nana Polozhij	[7]
	Veronica pinnata L. subsp. pinnata	[2-4, 6-8, 10, 14]
	Veronica porphyriana Pavlov	[7, 14]
	Veronica sajanensis Printz	[7]
Е	Veronica sapozhnikovii Kosachev	[7, 14]
	Veronica scutellata L.	[7]
	Veronica × schmakovii Kosachev	[7]
	Veronica × smirnovii Kosachev & D.A.German	[7]
	Veronicastrum sibiricum (L.) Pennell	[2, 4, 5, 6, 7, 9]
	Veronicastrum tubiflorum (Fisch. & C.A.Mey.) Soják	
	[≡ Veronica tubiflora Fisch. & C.A.Mey.]	[4]
	<b>85. Plumbaginaceae</b> Juss. (4 genera and 20 taxa)	
	Armeria maritima subsp. sibirica (Turcz.) Nyman [≡ Ar	meria sibirica Turcz.] [3, 7]
	Goniolimon callicomum Boiss.	[7, 14]
	Goniolimon eximium Boiss.	[7]
	Goniolimon krylovii A.V.Grebenjuk	[7, 14]
	Goniolimon speciosum Boiss.	[1–4, 6–15]
	Limonium aureum (L.) Hill	[3–13, 15, 16]
	Limonium bicolor Kuntze	[4, 6, 8, 9, 11-14]
	Limonium chrysocomum (Kar. & Kir.) Kuntze	[3, 7, 10, 11, 13–15]
	Limonium chrysocomum subsp. semenovii (Herder) Kam	nelin [7, 11, 13]
	Limonium congestum Kuntze	[6, 7, 10]
	Limonium coralloides (Tausch) Lincz.	[6, 10, 14]
	Limonium flexuosum Kuntze	[1–4, 6–9, 12, 13]
	Limonium gmelinii Kuntze	[6, 10, 14]
E	Limonium gobicum IkonnGal.	[12]
E	Limonium grubovii Lincz.	[9]
E	Limonium klementzii IkonnGal.	[7, 10, 15]
	Limonium myrianthum Kuntze	[14]
	Limonium suffruticosum Kuntze	[14]

	Limonium tenellum Kuntze	[4, 8, 9, 11–13, 15,
	Plumbagella micrantha (Ledeb.) Spach	[3, 4]
	<b>86. Poaceae</b> Barnhart (58 genera and 229 taxa)	
	Note: The genus <i>Stipa</i> L. was recently revised which include species synopsis by Zhao et al (2019).	led a taxonomic key and
	Achnatherum caragana (Trin.) Nevski [= Stipa conferta	Poir.] [7]
	Achnatherum confusum (Litv.) Tzvelev [≡ Stipa confusa	
SE		
SE	Achnatherum pelliotii (Danguy) Röser & Hamasha [≡	Stipa pelliotii Danguy]
		[7, 11–16]
	Achnatherum sibiricum (L.) Keng [≡ Stipa sibirica (L.)	Lam.] [1–13]
	Aeluropus littoralis (Gouan) Parl.	[10, 14, 15]
	Agropyron cristatum (L.) Gaertn. [ $\equiv$ Bromus cristatus L.	[1–7, 9–15]
	Agropyron desertorum Schult.	[3, 6–9, 11–13, 15]
	Agropyron fragile (Roth) P.Candargy	[6, 8, 9, 11, 12, 14]
	Agropyron krylovianum Schischk. [≡ Kengyilia krylovia	na
	(Schischk.) C.Yen, J.L.Yang & B.R.Baum]	[4, 6, 7]
	Agropyron michnoi Roshev. $[\equiv Agropyron\ cristatum\ (L.)$	
	Gaertn. subsp. <i>michnoi</i> (Roshev.) Á.Löve]	[1, 3–5, 8–10, 13, 14]
	Agropyron pumilum (Steud.) P.Candargy	[6, 10, 14]
	Agrostis clavata Trin. [ $\equiv$ Agrostis exarata subsp. clavata	(Trin.) T.Koyama]
		[1, 2, 3, 4, 5, 9]
	Agrostis divaricatissima Mez [= Agrostis mongolica Rosh	ev.] [2–13, 15]
	Agrostis gigantea Roth	[1-7, 9, 10, 13, 14]
	Agrostis stolonifera L.	[1, 3, 4, 7-10, 14]
SE	Agrostis tuvinica Peschkova	[1, 2]
	Agrostis vinealis Schreb. [= Agrostis trinii Turcz.]	[1-10, 13]
	Alopecurus aequalis Sobol.	[1-10, 12]
	Alopecurus arundinaceus Poir.	[1-10, 12-14]
	Alopecurus brachystachyus M.Bieb.	[1-10, 13]
	Alopecurus pratensis L.	[3, 4, 6, 8-10, 13, 14]
SE	Alopecurus turczaninovii O.D.Nikif.	[1-4, 6-8, 13]
	Anthoxanthum glabrum (Trin.) Veldkamp [ $\equiv Hierochlo$	pe glabra Trin.] [1–10]
	Anthoxanthum monticola (Bigelow) Veldkamp [ $\equiv Holc$	us monticola Bigelow]
		[1-3, 6, 7, 10]
	Anthoxanthum nitens (Weber) Y.Schouten & Veldkam	p
	$[\equiv Poa\ nitens\ Weber = Hierochloe\ odorata\ (L.)\ P.Beauv.$	[1-4, 6-10, 14]
	Anthoxanthum odoratum L.	[2, 3, 4, 5, 7]
	Arctagrostis latifolia Griseb.	[1, 2, 3]
	Arctopoa schischkinii (Tzvelev) Prob. [≡ Poa schischkini	
	Arctopoa tibetica (Munro) Prob. [≡ Poa tibetica Munro	[1, 3, 6–8, 10–15]

	Aristida adscensionis L. [3, 8–13, 15, 16]
	Arundinella hirta (Thunb.) Tanaka [ $\equiv Poa \ hirta$ Thunb.] [4, 5, 9]
	Beckmannia syzigachne Fernald [1–6, 8–16]
	Brachypodium pinnatum (L.) P.Beauv. $[\equiv Bromus pinnatus L.]$ [3, 4]
	<i>Bromus inermis</i> Leyss. [1–10, 12–15]
	Bromus japonicus Thunb. [6, 7, 10, 12, 14]
	Bromus oxyodon Schrenk [7, 11, 14]
	Bromus pumpellianus Scribn. [= Bromus korotkiji Drobow] [3, 4, 7–11, 13]
	Bromus scoparius L. [14]
	Bromus squarrosus L. [10]
	Bromus tectorum L. [7, 14]
	Calamagrostis angustifolia Kom. [= Calamagrostis angustifolia subsp. tenuis (V.N.Vassil.) Tzvelev] [1–11, 13, 14]
	Calamagrostis epigejos (L.) Roth [= Calamagrostis epigejos subsp.  glomerata (Boiss. & Buhse) Tzvelev] [2, 4, 5, 9]
	Calamagrostis inexpansa A.Gray [= Calamagrostis inexpansa subsp.
	micrantha (Kearney) Stebbins] [2, 3, 4, 5]
	Calamagrostis korotkyi Litv. [≡ Deyeuxia korotkyi (Litv.) S.M.Phillips &
	W.L.Chen] [1, 2, 3, 4, 6]
SE	Calamagrostis × kuznetzovii Tzvelev [4]
	Calamagrostis lapponica (Wahlenb.) Hartm. [≡ Arundo lapponica Wahlenb.]
	[1-4, 6-8, 10, 13-15]
	Calamagrostis macilenta Litv. [1–4, 7–13, 15]
	Calamagrostis macrolepis Litv. [ $\equiv$ Calamagrostis epigejos subsp.
	macrolepis (Litv.) Tzvelev] [2, 3, 4]
	Calamagrostis obtusata Trin. [3, 4]
	Calamagrostis pavlovii (Roshev.) Roshev. [1–4, 7, 8, 10, 11]
	Calamagrostis pseudophragmites (Haller f.) Koeler
	$[\equiv Arundo\ pseudophragmites\ Haller\ f.]$ [1–7, 9]
	Calamagrostis purpurea (Trin.) Trin. $[\equiv Arundo\ purpurea\ Trin.]$ [2, 3, 4, 10]
SE	Calamagrostis sajanensis Malyschev [8, 9, 10, 13]
	Calamagrostis salina Tzvelev [1–5, 8, 9, 13]
	Calamagrostis stricta (Timm) Koeler $[\equiv Arundo\ stricta\ Timm]$ [2]
	Catabrosa aquatica (L.) P.Beauv. [2–4, 8–10, 13]
	Cenchrus flaccidus (Griseb.) Morrone [≡ Pennisetum flaccidum Griseb.]
	[10, 12]
O.E.	Cinna latifolia (Trevir.) Griseb. $[\equiv Agrostis latifolia Trevir.]$ [2, 3, 4]
SE	Cleistogenes caespitosa Keng [12]
SE	Cleistogenes festucacea Honda [= Cleistogenes foliosa Keng] [4, 12, 13]
	Cleistogenes kitagawae Honda [≡ Kengia kitagawae (Honda) Packer]
	[2-5, 8, 9]
	Cleistogenes songorica (Roshev.) Ohwi [4, 7–16]
	Cleistogenes squarrosa (Trin.) Keng [2–13]

Colpodium altaicum Trin.	[1, 7]
Deschampsia caespitosa P.Beauv. subsp. caespitosa	[1-4, 6, 7, 8]
Deschampsia caespitosa subsp. orientalis Hultén	[1, 2, 3, 4, 5]
Deschampsia caespitosa subsp. pamirica (Roshev.) Tzvele	V
[≡ <i>Deschampsia pamirica</i> Roshev.]	[1, 3]
Deschampsia koelerioides Regel	[1, 2, 3, 6, 7]
Echinochloa crus-galli (L.) P.Beauv.	[4, 7, 9, 12, 13]
Elymus bungeanus (Trin.) Melderis	[2, 4, 6, 7, 12, 14, 15]
Elymus confusus (Roshev.) Tzvelev	
[≡ <i>Roegneria confusa</i> (Roshev.) Nevski]	[1-4, 7, 8, 13]
Elymus dahuricus Turcz.	[1–10, 13]
Elymus fedtschenkoi Tzvelev [≡ Roegneria fedtschenkoi (T	
J.L.Yang & C.Yen]	[7]
Elymus gmelinii (Ledeb.) Tzvelev	[1–5, 7, 8, 9, 13]
Elymus karakabinicus Kotukhov	[7]
Elymus macrourus (Turcz.) Tzvelev [= Elymus kronokensi	2 3
Elymus kronokensis subsp. subalpinus (Neuman) Tzv	
Elymus mutabilis (Drobow) Tzvelev [= Elymus transbaics	
Tzvelev = <i>Elymus praecaespitosus</i> (Nevski) Tzvelev]	
Elymus nutans Griseb.	[3, 4, 9, 13]
Elymus pendulinus (Nevski) Tzvelev [= Agropyron vernica	
	[4, 5, 7, 9, 12, 13, 16]
Elymus reflexiaristatus (Nevski) Melderis [= Elymus aegil	
(Drobow) Vorosch.]	[1–7, 12, 13, 14]
Elymus repens (L.) Gould [= Elytrigia repens (L.) Nevski	
Elymus schrenkianus (Fisch. & C.A.Mey.) Tzvelev	
[= Elymus pamiricus Tzvelev]	[3, 4, 7, 13]
Elymus sibiricus L.	[1–10, 12–16]
Elymus uralensis (Nevski) Tzvelev [= Elymus uralensis sul	
komarovii (Nevski) Tzvelev]	[2, 3, 4, 6, 13]
Elymus varius (Keng) Tzvelev	[4]
Enneapogon desvauxii P.Beauv.	[3, 4, 6-15]
Eragrostis cilianensis (All.) Vignolo	[0, 1, 0]
Eragrostis minor Host	[2, 3, 4, 6-16]
Eragrostis pilosa (L.) P.Beauv. [= Eragrostis pilosa subsp.	[2, 3, 1, 0 10]
imberbis (Franch.) Tzvelev]	[2, 4, 7–10, 12]
Eremopyrum distans (K.Koch) Nevski	[14]
Festuca altaica Trin.	[1, 3, 4, 6, 7]
Festuca brachyphylla Schult. & Schult.f.	[1, 3, 4, 6, 7] $[1, 3, 6, 7, 13]$
Festuca dahurica V.I.Krecz. & Bobr.	[1, 5, 6, 7, 15] $[2, 4, 5, 9]$
Festuca extremiorientalis Ohwi	[2, 4, j, j] $[2]$
Festuca hubsugulica Krivot. [= Festuca sumneviczii Serg.]	
Festuca jacutica Drobow	[4, 9]

	Festuca komarovii Krivot.	[1, 2]	
	Festuca kryloviana Reverd.	[1-4, 6, 7, 9, 13]	
	Festuca kurtschumica E.B.Alexeev	[7]	
	Festuca lenensis Drobow	[1–9, 13, 15]	
	Festuca litvinovii (Tzvelev) E.B.Alexeev	[9]	
	Festuca oreophila MarkgrDann. [= Festuca valesiaca sub	osp.	
	hypsophila (StYves) Tzvelev]	[1–4, 6, 7, 13, 14]	
	Festuca ovina L. [= Festuca ovina subsp. sphagnicola (B.k	Keller) Tzvelev]	
		[1-7, 9, 13]	
SE	Festuca pseudosulcata Drobow	[4]	
	Festuca rubra L.	[1–9, 13]	
	Festuca sibirica Hack.	[1–5, 8–10, 13]	
	Festuca tristis Krylov & Ivanitzk.	[3, 6, 7]	
SE	Festuca tschujensis Reverd.	[3, 6, 7, 10]	
	Festuca valesiaca Schleich.	[1-10, 13]	
	Festuca venusta StYves	[1, 2, 3, 4]	
	Glyceria arundinacea Kunth	[1-10, 14]	
	Glyceria lithuanica (Gorski) Gorski	[3, 5]	
	Glyceria spiculosa Roshev. [= Glyceria longiglumis Hand.		
	Helictochloa dahurica (Kom.) Romero Zarco		
	[≡ Helictotrichon dahuricum (Kom.) Kitag.]	[1, 4, 5]	
	Helictochloa hookeri (Scribn.) Romero Zarco		
	[= Helictotrichon schellianum (Hack.) Kitag.]	[1–9, 13]	
	Helictotrichon desertorum (Less.) Pilg.		
	[= Helictotrichon altaicum Tzvelev]	[3, 6, 7]	
	Helictotrichon mongolicum (Roshev.) Henrard		
	$[\equiv Avenastrum\ mongolicum\ (Roshev.)\ Roshev.]$	[1-3, 6, 7, 13]	
	Helictotrichon pubescens (Huds.) Pilg.		
	[= Hordeum brevisubulatum subsp. turkestanicum (Nevski) Tzvelev]		
		[3, 4, 7, 9]	
	Hordeum bogdanii Wilensky	[3, 7, 9, 10, 14–16]	
	Hordeum brevisubulatum Link		
	[= Hordeum brevisubulatum subsp. turkestanicum (Ne	vski) Tzvelev] [1–16]	
	Hordeum roshevitzii Bowden		
	[≡ <i>Critesion roshevitzii</i> (Bowden) Tzvelev]	[1, 2, 4, 8–11, 13]	
	Koeleria altaica (Domin) Krylov	[1-10, 13]	
	Koeleria asiatica Domin	[2, 8]	
	Koeleria glauca DC.	[4]	
	Koeleria litvinowii Domin	[1, 3, 7, 13]	
	Koeleria macrantha (Ledeb.) Schult.	[1-5, 8-13]	
	Koeleria spicata subsp. mongolica (Hultén ) Barberá, Qu	intanar, Soreng, &	
	P.M.Peterson [≡ <i>Trisetum spicatum</i> subsp. <i>mongolicu</i>		
		[1-4, 6, 7, 13]	

SE	Koeleria thonii Domin	[5]
	Leymus angustus (Trin.) Pilg. [≡ Elymus angustus Trin.]	[3, 6, 7, 10–14, 16]
	Leymus chinensis (Trin.) Tzvelev	[1–6, 8–14]
SE	Leymus ordensis Peschkova	[15]
	Leymus paboanus (Claus) Pilg.	[3, 6–8, 10–14]
	Leymus racemosus (Lam.) Tzvelev	[3, 5, 6, 8-13]
	Leymus ramosus (K.Richt.) Tzvelev [ $\equiv$ Agropyron ramosus	<i>um</i> K.Richt.] [5, 9]
	Leymus secalinus (Georgi) Tzvelev [= Leymus secalinus v	
	mongolicus (Meld.) Tzvelev = Leymus ovatus (Trin.)	
	Melica nutans L.	[1, 2, 4]
	Melica transsilvanica Schur	[7]
	Melica turczaninowiana Ohwi	[2, 3, 4, 5, 9]
	Melica virgata Turcz.	[1–5, 8–10, 12, 13]
	Milium effusum L.	[2]
	Nardus stricta L.	[3]
	Neotrinia splendens (Trin.) M.Nobis	
	$[\equiv Achnatherum splendens (Trin.) Nevski \equiv Stipa splendens (Trin.)$	
		[2–5, 7–16]
	Phalaris arundinacea L.	[1-5, 7, 9, 10, 14]
	Phleum alpinum L.	[7]
	Phleum phleoides (L.) H.Karst.	[2–4, 6–8, 10]
	Phragmites australis (Cav.) Steud.	[1–16]
	Piptatherum songaricum (Trin. & Rupr.) Roshev.	[7, 14]
	Poa alpina L.	[1, 3, 6, 7, 15]
	Poa alta Hitchc. [= Poa mongolica (Rendle) Keng]	[2, 5]
	Poa altaica Trin. [ $\equiv$ Poa glauca subsp. altaica (Trin.) Ol	onova & G.H.Zhu]
		[1-3, 6, 7, 10, 13]
	Poa angustifolia L. [ $\equiv$ Poa pratensis subsp. angustifolia (]	
		5, 9]
	Poa annua L. [≡ Ochlopoa annua (L.) H.Scholz]	[2, 7, 9]
	Poa argunensis Roshev.	[1-11, 13, 15]
	Poa attenuata Trin. subsp. attenuata.	[1–4, 6–10, 12–14]
	Poa attenuata subsp. botryoides (Trin.) Tzvelev	[1, 3-9, 13]
	Poa attenuata subsp. dahurica (Trin.) Gubanov [≡ Poa	
		[1-4, 7-13]
	Poa attenuata subsp. tshuensis (Serg.) Olonova	
	$[\equiv Poa\ argunensis\ f.\ tshuensis\ Serg.]$	[1–4, 6–10, 12–15]
	<i>Poa glauca</i> Vahl	[1, 3, 6, 7, 13]
	Poa ircutica Roshev.	[4]
SE	Poa kenteica Ivanova	[2, 3]
	Poa krylovii Reverd. [≡ Poa urssulensis subsp. krylovii (R	
	Dod namoualta I	[2, 3, 4, 7, 8]
	Poa nemoralis L.	[1-5, 8, 9]

	Poa palustris L.	[1–5, 7, 8, 9, 13]
	Poa pratensis L. [= Poa pratensis subsp. sabulosa (Turcz.) T	
	Poa raduliformis Prob.	[2, 7]
	Poa sibirica Roshevitz	[1–7, 10, 13]
	Poa smirnowii Roshev.	[1, 3, 4, 6, 7]
	Poa subfastigiata Trin.	[1–6, 8–10, 13]
	Poa supina Schrad.	[3, 4, 7]
	Poa tianschanica Hack.	[1–10, 13]
	Poa trivialis L.	[1]
	Poa urssulensis Trin.	[2, 3, 5]
	Poa veresczaginii Tzvelev	[7]
	Poa versicolor subsp. reverdattoi (Roshev.) Olonova & (	
	[≡ <i>Poa reverdattoi</i> Roshev.]	[1, 3, 5–10, 13, 14]
	Poa versicolor Besser subsp. versicolor	[,,=,,=,,=,,=,,=,,=,,=,,=,,=,,=,=,=,=,=
	[= <i>Poa versicolor</i> subsp. <i>stepposa</i> (Krylov) Tzvelev]	[1–9, 11, 13]
	Polypogon maritimus Willd.	[11, 15]
	Polypogon monspeliensis (L.) Desf.	[7, 10, 11, 13, 15, 16]
SE	Psammochloa villosa (Trin.) Bor	[3, 9–13, 16]
	Psathyrostachys juncea (Fisch.) Nevski	[3, 6, 7, 10, 12–15]
	Psathyrostachys lanuginosus (Trin.) Nevski	[7, 14]
	Ptilagrostis mongholica (Turcz.) Griseb. [≡ Stipa mongh	
		[1, 2, 3, 4, 7]
	Puccinellia altaica Tzvelev	[14]
	Puccinellia distans (Jacq.) Parl.	[11, 13, 14]
SE	Puccinellia filifolia (Trin.) Tzvelev	[8, 12]
	Puccinellia hackeliana (V.I.Krecz.) V.I.Krecz.	[7]
	Puccinellia hauptiana (V.I.Krecz.) Kitag.	[3–11, 13, 14]
	Puccinellia macranthera V.I.Krecz.	[2-5, 7-10, 12, 14]
	Puccinellia manchuriensis Ohwi	[3]
	Puccinellia nudiflora (Hack.) Tzvelev	[7, 13]
SE	Puccinellia przewalskii Tzvelev	[10]
	Puccinellia schischkinii Tzvelev	[5, 8, 10, 12, 13, 15]
	Puccinellia tenuiflora Scribn. & Merr. [= Puccinellia kr	eczetoviczii Bubnova]
		[1–16]
	Schismus arabicus Nees	[4, 7, 11, 14]
	Schizachne purpurascens subsp. callosa (Turcz.) T.Koyar	ma & Kawano
		[2, 3, 4, 5]
	Scolochloa festucacea Link	[4]
	Sibirotrisetum sibiricum (Rupr.) Barberá [≡ Trisetum si	biricum Rupr.]
		[1-5, 7-10, 13]
	Spodiopogon sibiricus Trin.	[2, 3, 4, 5, 8, 9]
	Sporobolus aculeatus (L.) P.M.Peterson [≡ Crypsis aculeata	(L.) Aiton] [10–13, 15]
	Sporobolus schoenoides (L.) P.M.Peterson [≡ Crypsis schoen	oides Lam.] [3, 10, 14]

Stipa baicalensis Roshev.       [1-5, 7, 8, 9, 12]         Stipa brevillom Griseb.       [7, 8, 9, 12, 13]         Stipa capillata L.       [3, 4, 7, 10, 12]         Stipa caucasica Schmalh. subsp. caucasica       [7, 10-14, 16]         Stipa caucasica subsp. desertorum (Roshev.) Tzvelev       [10]         Stipa caucasica subsp. desertorum (Roshev.) Tzvelev       [2, 7, 10]         Stipa glareosa P.A.Smirn.       [3, 6-16]         Stipa glareosa P.A.Smirn.       [3, 4, 6-16]         Stipa gobica Roshev.       [3, 4, 6-16]         Stipa gobica Roshev.       [3, 4, 5, 8, 9]         E       Stipa khovdensis L.Q.Zhao       [3, 4, 5, 8, 9]         E       Stipa khovdensis L.Q.Zhao       [3, 7, 10, 14]         Stipa khrybisorum P.A.Smirn.       [3, 7, 10, 14]         Stipa khrybisorum P.A.Smirn.       [3, 4, 6, 8, 9-13]         Stipa krylovii Roshev.       [1-14]         Stipa krylovii Roshev.       [1-14]         Stipa wongolorum Tzvelev       [7, 8, 10, 11, 12]         Stipa orientalis Trin.       [1, 3, 6, 7, 10, 11, 14]         Stipa pennata L. subsp. pennata       [3, 4]         Stipa pennata Subsp. sabulosa (Pacz.) Tzvelev       [10]         Stipa sareptana A. Beck.       [3, 7, 10, 11, 13]         Stipa tianschanica Var. klemenzii (Roshev.)	E Stipa austromongolica	M.Nobis [1	0]
Stipa capillata L. Stipa caucasica Schmalh. subsp. caucasica Stipa caucasica Schmalh. subsp. caucasica Stipa caucasica Schmalh. subsp. caucasica Stipa caucasica Schmalh. subsp. desertorum (Roshev.) Tzvelev Stipa caucasica Schmalh. & Rupr. Stipa glareosa f. pubescers P.A.Smirn. Stipa glareosa P.A.Smirn. [≡ Stipa caucasica subsp. glareosa (P.A.Smirn.) Tzvelev] Stipa gobica Roshev. Stipa gobica Roshev. Stipa gobica Roshev. Stipa grandis P.A.Smirn. Stipa kirghisorum Tzvelev Stipa orientalis Trin. Stipa orientalis Trin. Stipa orientalis Trin. Stipa pennata L. subsp. pennata Stipa pennata Subsp. sabulosa (Pacz.) Tzvelev Stipa sareptana A. Beck. Stipa sareptana A. Beck. Stipa stareptana A. Beck. Stipa tianschanica Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.F. Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] Stipa tianschanica var. klemenzii (Roshev.) Norl. ] Stipa zalesskii Wilensky Tinowria saposhnikowii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]  Tragus mongolorum Ohwi Trisetum altaicum Roshev. Stipa tianschanica subsp. (2 genera and 4 species) Phlox sibirica L. Polemonium boreale Adams [1, 3, 6] Polemonium boreale Adams [1, 3, 6] Polemonium pulchellum Bunge  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1-4, 6, 7, 14] Polygala sibirica L. [1, 2, 3, 4, 5, 9]	Stipa baicalensis Rosh	ev. [1–5, 7, 8, 9, 1	2]
Stipa caucasica Schmalh. subsp. caucasica Stipa caucasica subsp. desertorum (Roshev.) Tzvelev [10] Stipa caucasica subsp. desertorum (Roshev.) Tzvelev [10] Stipa glareosa ft. pubescens P.A.Smirn. Stipa glareosa ft. pubescens P.A.Smirn. [4-12] Stipa glareosa P.A.Smirn. [3, 6-16] Stipa gobica Roshev. [3, 6-16] Stipa gobica Roshev. [3, 4, 6-16] Stipa grandis P.A.Smirn. [3, 4, 5, 8, 9] E Stipa khovdensis L.Q.Zhao Stipa kirghisorum P.A.Smirn. [3, 7, 10, 14] Stipa klemenzii Roshev. [1-14] Stipa klemenzii Roshev. [1-14] Stipa mongolorum Tzvelev Stipa vintaliis Trin. [1, 3, 6, 7, 10, 11, 12] Stipa pennata L. subsp. pennata Stipa pennata L. subsp. pennata Stipa pennata Subsp. sabulosa (Pacz.) Tzvelev [10] Stipa sareptana A. Beck. [3, 7, 10, 11, 13] Stipa scerebakovii Kotuch. [7] Stipa tianschanica Roshev. [8] Cui = Stipa tianschanica Roshev. [9] Timouria saposhnikowii Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.E. Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] Timouria saposhnikowii Roshev. [12, 13, 16] Tragus mongolorum Ohwi Tipogon purpuruscens Duthie Tripogon purpuruscens Duthie Tripogon purpuruscens Duthie Tripogon purpuruscens Duthie Tripogon purpuruscens Duthie Trisetum altaicum Roshev. [12, 13, 16] Polemonium boreale Adams Polemonium chinense Brand Polemonium chinense Brand Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala sibirica L. [1-7, 9] [1-4, 6, 7, 14] Polygala sibirica L. [1-4, 6, 7, 14]	Stipa breviflora Grisel	[7, 8, 9, 12, 1	3]
Stipa caucasica subsp. desertorum (Roshev.) Tzvelev   [10]   Stipa caucasinguinea Trin. & Rupr.   [2, 7, 10]   Stipa glareosa f. pubescens P.A.Smirn.   [4-12]   Stipa glareosa f. pubescens P.A.Smirn.   [3, 6-16]   Stipa glareosa RA.Smirn.   [3 tipa gobica Roshev.   [3, 4, 6-16]   Stipa gobica Roshev.   [3, 4, 6-16]   Stipa grandis P.A.Smirn.   [3, 4, 5, 8, 9]	Stipa capillata L.	[3, 4, 7, 10, 1	2]
Stipa caucasica subsp. desertorum (Roshev.) Tzvelev   [10]   Stipa caucasinguinea Trin. & Rupr.   [2, 7, 10]   Stipa glareosa f. pubescens P.A.Smirn.   [4-12]   Stipa glareosa f. pubescens P.A.Smirn.   [3, 6-16]   Stipa glareosa RA.Smirn.   [3 tipa gobica Roshev.   [3, 4, 6-16]   Stipa gobica Roshev.   [3, 4, 6-16]   Stipa grandis P.A.Smirn.   [3, 4, 5, 8, 9]	2 2	lh. subsp. <i>caucasica</i> [7, 10–14, 1	6]
Stipa consanguinea Trin. & Rupr.   [2, 7, 10]	_		_
Stipa glareosa f. pubescens P.A.Smirn. [4-12] Stipa glareosa P.A.Smirn. [≡ Stipa caucasica subsp. glareosa (P.A.Smirn.) Tzvelev]    Stipa gobica Roshev.	_		0]
Stipa glareosa P.A.Smirn. [≡ Stipa caucasica subsp. glareosa (P.A.Smirn.) Tzvelev]  [3, 6-16]  Stipa gobica Roshev. [3, 4, 6-16]  Stipa grandis P.A.Smirn. [3, 4, 5, 8, 9]  E Stipa khovdensis L.Q.Zhao [3, 6]  Stipa kirghisorum P.A.Smirn. [3, 7, 10, 14]  Stipa klemenzii Roshev. [3, 4, 6, 8, 9-13]  Stipa krylovii Roshev. [1-14]  Stipa mongolorum Tzvelev [7, 8, 10, 11, 12]  Stipa orientalis Trin. [1, 3, 6, 7, 10, 11, 14]  Stipa pennata L. subsp. pennata [3, 4]  Stipa pennata Subsp. sabulosa (Pacz.) Tzvelev [10]  Stipa sareptana A. Beck. [3, 7, 10, 11, 13]  Stipa sareptana A. Beck. [3, 7, 10, 11, 13]  Stipa sareptana A. Beck. [3, 7, 10, 11, 13]  Stipa tianschanica Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.F.  Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] [3, 4, 6-16]  Stipa zalesskii Wilensky [3, 7, 10]  Timouria saposhnikowii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]  Tripogon chinensis Hack. [2, 4, 5, 8, 9, 12]  Tripogon purpurascens Duthie [12, 13]  Tripogon purpurascens Duthie [12, 13, 16]  Trisetum altaicum Roshev. [1, 2, 3, 6, 7]  Zizania latifolia Turcz. [9]  87. Polemoniaceae Juss. (2 genera and 4 species)  Phlox sibirica L. [1, 4]  Polemonium boreale Adams [1, 3, 6]  Polemonium chinense Brand [1-7, 9]  Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.] [1-4, 6, 7, 14]  Polygala sibirica L. [1, 4, 5, 9]		<u>-</u>	-
Stipa grandis P.A.Smirn.   [3, 4, 6–16]     Stipa khovdensis L.Q.Zhao   [3, 6]     Stipa khrybisorum P.A.Smirn.   [3, 7, 10, 14]     Stipa kirghisorum P.A.Smirn.   [3, 7, 10, 14]     Stipa kirghisorum P.A.Smirn.   [3, 7, 10, 14]     Stipa kirghisorum P.A.Smirn.   [3, 4, 6, 8, 9–13]     Stipa krylovii Roshev.   [1–14]     Stipa krylovii Roshev.   [1–14]     Stipa orientalis Trin.   [1, 3, 6, 7, 10, 11, 14]     Stipa pennata L. subsp. pennata   [3, 4]     Stipa pennata subsp. sabulosa (Pacz.) Tzvelev   [10]     Stipa sareptana A. Beck.   [3, 7, 10, 11, 13]     Stipa szerbakovii Kotuch.   [7]     Stipa tianschanica Roshev.   Estipa tianschanica subsp. gobica (Roshev.) D.F.     Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl.   [3, 4, 6–16]     Stipa zalesskii Wilensky   [3, 7, 10]     Timouria saposhnikowii Roshev.   Estipa saposhnikowii (Roshev.) Kitag.]     Tragus mongolorum Ohwi   [12, 13]     Tripogon chinensis Hack.   [2, 4, 5, 8, 9, 12]     Tripogon purpurascens Duthie   [12, 13, 16]     Trisetum altaicum Roshev.   [1, 2, 3, 6, 7]     Zizania latifolia Turcz.   [9]     87. Polemoniaceae Juss. (2 genera and 4 species)     Phlox sibirica L.   [1, 4]     Polemonium boreale Adams   [1, 3, 6]     Polemonium chinense Brand   [1–7, 9]     Polemonium pulchellum Bunge   [1, 3, 6]     88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)     Polygala comosa Schkuhr   = Polygala hybrida DC.   [1–4, 6, 7, 14]     Polygala sibirica L.   [1, 4, 5, 7, 14]     Polygala sibirica L.   [1, 4, 6, 7, 14]     Polygala sibirica L.   [1, 2, 3, 4, 5, 9]			_
Stipa grandis P.A.Smirn.		[3, 6–1	6]
E	Stipa gobica Roshev.	[3, 4, 6–1	6]
Stipa kirghisorum P.A.Smirn. [3, 7, 10, 14] Stipa klemenzii Roshev. [3, 4, 6, 8, 9–13] Stipa krylovii Roshev. [1–14] Stipa mongolorum Tzvelev [7, 8, 10, 11, 12] Stipa orientalis Trin. [1, 3, 6, 7, 10, 11, 14] Stipa pennata L. subsp. pennata [3, 4] Stipa pennata subsp. sabulosa (Pacz.) Tzvelev [10] Stipa sareptana A. Beck. [3, 7, 10, 11, 13] Stipa sczerbakovii Kotuch. [7] Stipa tianschanica Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.F. Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] [3, 4, 6–16] Stipa zalesskii Wilensky [3, 7, 10] Timouria saposhnikowii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]  Tragus mongolorum Ohwi [12, 13] Tripogon chinensis Hack. [2, 4, 5, 8, 9, 12] Tripogon purpurascens Duthie [12, 13, 16] Trisetum altaicum Roshev. [1, 2, 3, 6, 7] Zizania latifolia Turcz. [9]  87. Polemoniaceae Juss. (2 genera and 4 species) Phlox sibirica L. [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1–7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1–4, 6, 7, 14] Polygala sibirica L. [1, 2, 3, 4, 5, 9]	Stipa grandis P.A.Smir	n. [3, 4, 5, 8,	9]
Stipa klemenzii Roshev. [3, 4, 6, 8, 9–13] Stipa krylovii Roshev. [1–14] Stipa mongolorum Tzvelev [7, 8, 10, 11, 12] Stipa orientalis Trin. [1, 3, 6, 7, 10, 11, 14] Stipa pennata L. subsp. pennata [3, 4] Stipa pennata subsp. sabulosa (Pacz.) Tzvelev [10] Stipa sareptana A. Beck. [3, 7, 10, 11, 13] Stipa sczerbakovii Kotuch. [7] Stipa tianschanica Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.F. Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] [3, 4, 6–16] Stipa zalesskii Wilensky [3, 7, 10] Timouria saposhnikowii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]  Tragus mongolorum Ohwi [12, 13] Tripogon chinensis Hack. [2, 4, 5, 8, 9, 12] Tripogon purpurascens Duthie [12, 13, 16] Trisetum altaicum Roshev. [1, 2, 3, 6, 7] Zizania latifolia Turcz. [9]  87. Polemoniaceae Juss. (2 genera and 4 species) Phlox sibirica L. [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1–7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1–4, 6, 7, 14] Polygala sibirica L. [1, 2, 3, 4, 5, 9]	E Stipa khovdensis L.Q.	Zhao [3,	6]
Stipa klemenzii Roshev. [3, 4, 6, 8, 9–13] Stipa krylovii Roshev. [1–14] Stipa mongolorum Tzvelev [7, 8, 10, 11, 12] Stipa orientalis Trin. [1, 3, 6, 7, 10, 11, 14] Stipa pennata L. subsp. pennata [3, 4] Stipa pennata subsp. sabulosa (Pacz.) Tzvelev [10] Stipa sareptana A. Beck. [3, 7, 10, 11, 13] Stipa sczerbakovii Kotuch. [7] Stipa tianschanica Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.F. Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] [3, 4, 6–16] Stipa zalesskii Wilensky [3, 7, 10] Timouria saposhnikowii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]  Tragus mongolorum Ohwi [12, 13] Tripogon chinensis Hack. [2, 4, 5, 8, 9, 12] Tripogon purpurascens Duthie [12, 13, 16] Trisetum altaicum Roshev. [1, 2, 3, 6, 7] Zizania latifolia Turcz. [9]  87. Polemoniaceae Juss. (2 genera and 4 species) Phlox sibirica L. [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1–7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1–4, 6, 7, 14] Polygala sibirica L. [1, 2, 3, 4, 5, 9]	Stipa kirghisorum P.A.	Smirn. [3, 7, 10, 1	4]
Stipa krylovii Roshev. [1–14] Stipa mongolorum Tzvelev [7, 8, 10, 11, 12] Stipa orientalis Trin. [1, 3, 6, 7, 10, 11, 14] Stipa pennata L. subsp. pennata [3, 4] Stipa pennata subsp. sabulosa (Pacz.) Tzvelev [10] Stipa sareptana A. Beck. [3, 7, 10, 11, 13] Stipa sczerbakovii Kotuch. [7] Stipa tianschanica Roshev. [= Stipa tianschanica subsp. gobica (Roshev.) D.F. Cui = Stipa tianschanica var. klemenzii (Roshev.) Norl. ] [3, 4, 6–16] Stipa zalesskii Wilensky [3, 7, 10] Timouria saposhnikowii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]  [13, 15] Tragus mongolorum Ohwi [12, 13] Tripogon chinensis Hack. [2, 4, 5, 8, 9, 12] Tripogon purpurascens Duthie [12, 13, 16] Trisetum altaicum Roshev. [1, 2, 3, 6, 7] Zizania latifolia Turcz. [9]  87. Polemoniaceae Juss. (2 genera and 4 species) Phlox sibirica L. [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1–7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1–4, 6, 7, 14] Polygala sibirica L. [1, 4, 5, 9]			
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Tragus mongolorum Ohwi  Tripogon chinensis Hack.  Tripogon purpurascens Duthie  Trisetum altaicum Roshev.  Zizania latifolia Turcz.  [12, 13]  [12, 13]  [12, 13]  [12, 13]  [12, 13]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [12, 13, 16]  [13, 16]  [14, 2, 3, 6, 7]  [15, 2, 3, 6, 7]  [16, 2, 3, 6, 7]  [17, 2, 3, 6, 7]  [18, 2, 3, 6, 7]  [19]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L.  [14, 4]  [17, 4]  [17, 4]  [18, 4]  [19]	Timouria saposhnikou	ii Roshev. [= Stipa saposhnikowii (Roshev.) Kitag.]	
Tripogon chinensis Hack.  Tripogon purpurascens Duthie Trisetum altaicum Roshev.  Zizania latifolia Turcz.  [12, 4, 5, 8, 9, 12]  [12, 13, 16]  [13, 16]  [14, 2, 3, 6, 7]  Zizania latifolia Turcz.  [9]  87. Polemoniaceae Juss. (2 genera and 4 species)  Phlox sibirica L.  Polemonium boreale Adams  [1, 4]  Polemonium chinense Brand  Polemonium pulchellum Bunge  [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L.  [1, 4, 6, 7, 14]  [1, 2, 3, 4, 5, 9]	•	[13, 1	5]
Tripogon purpurascens Duthie Trisetum altaicum Roshev. Zizania latifolia Turcz.  [12, 13, 16] [1, 2, 3, 6, 7] Zizania latifolia Turcz.  [9]  87. Polemoniaceae Juss. (2 genera and 4 species) Phlox sibirica L. Polemonium boreale Adams [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1-7, 9] Polemonium pulchellum Bunge  [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] Polygala sibirica L.  [1, 4] [1, 4] [1, 4] [1, 5, 6]	Tragus mongolorum C	hwi [12, 1	3]
Trisetum altaicum Roshev.  Zizania latifolia Turcz.  87. Polemoniaceae Juss. (2 genera and 4 species)  Phlox sibirica L.  Polemonium boreale Adams  Polemonium chinense Brand  Polemonium pulchellum Bunge  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L.  [1, 2, 3, 6, 7]  [1]  [1, 4]  [1, 3, 6]  [1-7, 9]  [1, 3, 6]	Tripogon chinensis Ha	ck. [2, 4, 5, 8, 9, 1	2]
Trisetum altaicum Roshev.  Zizania latifolia Turcz.  87. Polemoniaceae Juss. (2 genera and 4 species)  Phlox sibirica L.  Polemonium boreale Adams  Polemonium chinense Brand  Polemonium pulchellum Bunge  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L.  [1, 2, 3, 6, 7]  [1]  [1, 4]  [1, 3, 6]  [1-7, 9]  [1, 3, 6]	Tripogon purpurascens	Duthie [12, 13, 1	6]
87. Polemoniaceae Juss. (2 genera and 4 species)  Phlox sibirica L.  Polemonium boreale Adams  Polemonium chinense Brand  Polemonium pulchellum Bunge  [1, 3, 6]  Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L.  [1, 4]  [1, 3, 6]  [1, 7, 9]  [1, 3, 6]	Trisetum altaicum Ro	hev. [1, 2, 3, 6,	7]
Phlox sibirica L. [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1–7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1–4, 6, 7, 14] Polygala sibirica L. [1, 2, 3, 4, 5, 9]	Zizania latifolia Turc		9]
Phlox sibirica L. [1, 4] Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1–7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] [1–4, 6, 7, 14] Polygala sibirica L. [1, 2, 3, 4, 5, 9]	87 Polemoniaceae Iucc	(2 genera and (1 species)	
Polemonium boreale Adams [1, 3, 6] Polemonium chinense Brand [1-7, 9] Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] Polygala sibirica L. [1, 2, 3, 4, 5, 9]		-	<i>/</i> 1
Polemonium chinense Brand Polemonium pulchellum Bunge  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species) Polygala comosa Schkuhr [= Polygala hybrida DC.] Polygala sibirica L.  [1–7, 9] [1, 3, 6]			
Polemonium pulchellum Bunge [1, 3, 6]  88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L. [1, 2, 3, 4, 5, 9]			
88. Polygalaceae Hoffmanns. & Link (1 genus and 3 species)  Polygala comosa Schkuhr [= Polygala hybrida DC.]  Polygala sibirica L.  [1, 2, 3, 4, 5, 9]			
Polygala comosa Schkuhr [= Polygala hybrida DC.][1-4, 6, 7, 14]Polygala sibirica L.[1, 2, 3, 4, 5, 9]	1 вистопит раиспеши	" Dunge [1, 3,	Oj
Polygala sibirica L. [1, 2, 3, 4, 5, 9]			
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D = I + I + I + I + I + I + I + I + I + I	<i>V O</i>		_
Polygala tenuifolia Willd. [1–5, 8, 9, 12, 13]	<i>Polygala tenuifolia</i> Wi	ld. [1–5, 8, 9, 12, 1	3]

	89. Polygonaceae Juss. (11 genera and 63 taxa)	
	Atraphaxis bracteata Losinsk.	[3, 6, 7, 9, 10–16]
	Atraphaxis compacta Ledeb.	[13, 14, 15]
	Atraphaxis frutescens (L.) K.Koch	[3, 5, 6, 7, 9–16]
E	Atraphaxis kamelinii Yurtseva	[14]
	Atraphaxis pungens Jaub. & Spach	[2–16]
	Atraphaxis spinosa L.	[14, 15]
	Atraphaxis virgata (Regel) Krassn.	[7, 10, 12, 14,–16]
	Bistorta elliptica (Willd.) V.V.Petrovsky	[1, 2, 3, 6, 7]
SE	Calligonum ebinuricum Ivanova	[14, 15]
	Calligonum junceum (Fisch. & C.A.Mey.) Litv.	[14, 15]
	Calligonum litwinowi Drobow [= Calligonum gobicum	<i>l</i> Losinsk.] [14, 15]
	Calligonum mongolicum Turcz.	[7, 10–16]
	Fallopia convolvulus (L.) Á.Löve [≡ Polygonum convolv	vulus L.] $[2-5,$
		8–10, 12, 15]
	Fallopia dumetorum (L.) Holub	[5]
	Knorringia sibirica (Laxm.) Tzvelev subsp. sibirica	[1–16]
	Knorringia sibirica subsp. ubsunurica Tzvelev	[10]
	Koenigia islandica L.	[1–3, 6, 7, 10, 13]
	Oxyria digyna Hill	[1, 2, 3, 6, 7, 13]
	Persicaria alpina Gross.	[1-4, 6, 7, 8, 14]
	Persicaria amphibia (L.) Delarbre	[1, 3-12, 14]
	Persicaria bistorta Samp.	[2]
	Persicaria bungeana Nakai	[1-3, 5, 7-10, 13]
	<i>Persicaria hydropiper</i> (L.) Delarbre [≡ <i>Polygonum hydro</i>	opiper L.] $[2-4]$
		6–8, 10, 13, 14]
	<i>Persicaria lapathifolia</i> (L.) Delarbre [≡ <i>Polygonum ochr</i>	reatum L.] [1–16]
	Persicaria longiseta var. rotundata (A.J.Li) B.Li [	
	$\equiv$ Polygonum longisetum var. rotundatum A.J.Li ]	[2, 4, 8]
	Persicaria minor (Huds.) Opiz	[10, 14]
	Persicaria sagittata (L.) H.Gross	[2, 3, 4, 5, 8, 9]
	Persicaria vivipara (L.) Ronse Decr.	[1–4, 6–8, 10, 13, 14]
	Polygonum abbreviatum Kom.	[1, 2, 7]
	Polygonum alopecuroides Turcz.	[1-6, 8]
	Polygonum angustifolium Pall.	[1-5, 7-9, 11, 13]
	Polygonum arenastrum Boreau	[1, 3, 7, 10, 14]
	Polygonum argyrocoleon Steud.	[7, 10, 11, 13–15]
	Polygonum aviculare L.	[1-5, 7-14, 16]
	Polygonum cognatum Meisn.	[3, 4, 6, 7, 8, 10]
	Polygonum divaricatum L.	[1-5, 8, 9]
	Polygonum ellipticum Willd.	[1, 2, 3, 6, 7]
	Polygonum humifusum C.Merck	[3]
	Polygonum intramongolicum Borodina	[12, 13]

	Polygonum novoascanicum Klokov	[14]
	Polygonum patulum M.Bieb.	[3, 7, 9, 10, 14, 15]
	Polygonum polycnemoides Jaub. & Spach	[7, 14]
	Polygonum sericeum Pall.	[2, 3, 4, 8, 9]
	Polygonum tenuissimum A.I.Baranov & Skvortsov	[9]
	Polygonum valerii A.K.Skvortsov	[2, 4, 5, 8]
	Polygonum volchovense Tzvelev	[7]
	Rheum compactum L.	[1–4, 6, 7, 12–14]
	Rheum nanum Siev.	[7, 8, 10–16]
	Rheum rhabarbarum L. [= Rheum undulatum L.]	[1–5, 7–9, 12–14]
SE	Rheum uninerve Maxim.	[13]
	Rumex acetosa L.	[1, 2, 3, 6, 7]
	Rumex acetosella L.	[1-5, 8, 9]
	Rumex aquaticus L.	[1–10, 14]
	Rumex crispus L.	[1, 7, 9, 10, 14]
	Rumex gmelinii Turcz.	[2, 3, 4, 5, 8, 9]
	Rumex maritimus L.	[2–5, 8–11, 14]
	Rumex marschallianus Rchb.	[6, 8, 9, 10, 11]
	Rumex patientia L.	[7, 9, 13, 14]
	Rumex popovii Pachom.	[10, 13]
	Rumex pseudonatronatus (Borbás) Murb.	[11, 13]
	Rumex similans Rech.f.	[2–4, 6, 7, 10–12, 14, 15]
	Rumex stenophyllus Ledeb.	[2–4, 6, 7, 9, 10, 14, 15]
	Rumex thyrsiflorus Fingerh.	[1–14]
90	<b>). Potamogetonaceae</b> Bercht. & J.Presl (3 genera and	l 18 taxa)
	Potamogeton angustifolius Bercht. & J.Presl	[10]
	Potamogeton alpinus subsp. tenuifolius (Raf.) Hulter	
	Potamogeton berchtoldii Fieber	[3, 6, 7, 9]
	Potamogeton compressus L.	[1, 8, 9, 10, 14]
	Potamogeton crispus L.	[1, 8, 10]
	Potamogeton friesii Rupr.	[5, 8, 9]
	Potamogeton gramineus L.	[1-10, 14]
	Potamogeton lucens L.	[1, 8, 10]
	Potamogeton mandschuriensis A.Benn.	[5]
	Potamogeton natans L.	[1, 5–7, 10, 11]
	Potamogeton obtusifolius Mert. & W.D.J.Koch	[1, 3, 5]
	Potamogeton perfoliatus L.	[1-12, 14, 16]
	Potamogeton praelongus F.Muell.	[1-5, 8, 9]
	Potamogeton pusillus L.	[1–6, 8–11, 13, 14]
	Stuckenia filiformis (Pers.) Börner [≡ Potamogeton fi	
		[1, 3, 6–11, 13, 15]

Stuckenia vaginata Holub Zannichellia palustris L. [= Zannichellia palustris subsp. pedicellata (Rosén & Wahlenb.) Hook.f.]  91. Primulaceae Batsch (3 genera and 28 taxa)  Note: The genus Primula L. was recently revised by Baasanmunkh et al. (2020a). Androsace fedischenkoi Ovcz. [1, 6, 7, 13] Androsace filiformis Retz. [1, 2, 3, 4, 5, 9] Androsace gmelinii Gaertn. [2, 3, 9, 11] Androsace incana Lam. [1–9, 13] Androsace lehmanniana Spreng. [= Androsace amurensis Prob.] Androsace lehmanniana Spreng. [= Androsace bungeana Schischk. & Bobrov] [1, 2, 3, 6, 7, 9, 14] Androsace longifolia Turcz. [5, 9] Androsace maxima L. [2–4, 6–10, 13–15] Androsace ovczinnikovii Schischk. & Bobrov [3, 6, 7] Androsace septentrionalis L. [1–9, 12–14] Androsace villosa L. var. dasyphylla (Bunge) Kar. & Kir. [= Androsace dasyphylla Bunge] [1, 2, 3, 6, 7, 13] Lysimachia davurica Ledeb. [2, 3, 4, 5, 9, 14] Lysimachia maritima (L.) Galasso [= Glaux maritima L.] Lysimachia thyrsiflora L. [= Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14] Primula algida Adams [1–3, 6, 7, 11, 13] Primula longiscapa Ledeb. [1, 2, 3, 7, 13, 14] Primula matthioli subsp. altaica (Losinsk.) Kovt. [= Cortusa matthioli f. brotheri Pax]
91. Primulaceae Batsch (3 genera and 28 taxa)  Note: The genus Primula L. was recently revised by Baasanmunkh et al. (2020a).  Androsace fedischenkoi Ovcz. [1, 6, 7, 13]  Androsace filiformis Retz. [1, 2, 3, 4, 5, 9]  Androsace gmelinii Gaertn. [2, 3, 9, 11]  Androsace incana Lam. [1−9, 13]  Androsace lactiflora Fisch. [= Androsace amurensis Prob.] [1−4, 6, 7, 9, 14]  Androsace longifolia Turcz. [5, 9]  Androsace longifolia Turcz. [5, 9]  Androsace maxima L. [2−4, 6−10, 13−15]  Androsace ovezinnikovii Schischk. & Bobrov [3, 6, 7]  Androsace esptentrionalis L. [1−9, 12−14]  Androsace esptentrionalis L. [1−9, 12−14]  Androsace ovizinnikovii Schischk. & Bobrov [3, 6, 7, 13]  Lysimachia davurica Ledeb. [2, 3, 4, 5, 9, 14]  Lysimachia maritima (L.) U.Manns & Anderb. [≡ Trientalis europaea L.]  [1, 2, 3, 4, 5]  Lysimachia maritima (L.) Galasso [≡ Glaux maritima L.] [1−16]  Lysimachia thyrsiflora L. [≡ Naumburgia thyrsiflora (L.) Rchb.] [2−5, 9, 10, 14]  Primula algida Adams [1−3, 6, 7, 11, 13]  Primula cortusoides L. [3]  Primula cortusoides L. [3]  Primula farinosa L. [1−4, 6, 7, 10, 13, 14]  Primula matthioli subsp. altaica (Losinsk.) Kovt. [≡ Cortusa altaica Losinsk.]  [1, 2, 3, 7, 13, 14]  Primula matthioli subsp. brotheri (Pax) Kovt. [≡ Cortusa matthioli f. brotheri Pax]
91. Primulaceae Batsch (3 genera and 28 taxa)  Note: The genus Primula L. was recently revised by Baasanmunkh et al. (2020a).  Androsace fedtschenkoi Ovcz. [1, 6, 7, 13]  Androsace filiformis Retz. [1, 2, 3, 4, 5, 9]  Androsace incana Lam. [1–9, 13]  Androsace lactiflora Fisch. [= Androsace amurensis Prob.] [1–4, 6, 7, 9, 14]  Androsace lehmanniana Spreng. [= Androsace bungeana Schischk. & Bobrov [5, 9, 9]  Androsace longifolia Turcz. [5, 9]  Androsace ovczinnikovii Schischk. & Bobrov [3, 6, 7]  Androsace ovczinnikovii Schischk. & Bobrov [3, 6, 7]  Androsace septentrionalis L. [1–9, 12–14]  Androsace villosa L. var. dasyphylla (Bunge) Kar. & Kir.  [≡ Androsace dasyphylla Bunge] [1, 2, 3, 6, 7, 13]  Lysimachia davurica Ledeb. [2, 3, 4, 5, 9, 14]  Lysimachia europaea (L.) U.Manns & Anderb. [≡ Trientalis europaea L.]  [1, 2, 3, 4, 5]  Lysimachia thyrsiflora L. [≡ Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14]  Primula algida Adams [1–3, 6, 7, 11, 13]  Primula bukukunica Kovt. [1–4, 6, 7, 10, 13, 15]  Primula farinosa L. [1–4, 6, 7, 10, 13, 14]  Primula matthioli subsp. altaica (Losinsk.) Kovt. [≡ Cortusa altaica Losinsk.]  [1, 2, 3, 7, 13, 14]  Primula matthioli subsp. brotheri (Pax) Kovt. [≡ Cortusa matthioli f. brotheri Pax]
Note: The genus $Primula$ L. was recently revised by Baasanmunkh et al. (2020a). Androsace fedtschenkoi Ovcz. [1, 6, 7, 13] Androsace filiformis Retz. [1, 2, 3, 4, 5, 9] Androsace gmelinii Gaertn. [2, 3, 9, 11] Androsace incana Lam. [1–9, 13] Androsace lactiflora Fisch. [= Androsace amurensis Prob.] [1–4, 6, 7, 9, 14] Androsace lehmanniana Spreng. [= Androsace bungeana Schischk. & Bobrov] [1, 2, 3, 6, 7, 9] Androsace longifolia Turcz. [5, 9] Androsace maxima L. [2–4, 6–10, 13–15] Androsace ovczinnikovii Schischk. & Bobrov [3, 6, 7] Androsace eptentrionalis L. [1–9, 12–14] Androsace espetentrionalis L. [1–9, 12–14] Androsace dasyphylla Bunge] [1, 2, 3, 6, 7, 13] Lysimachia davurica Ledeb. [2, 3, 4, 5, 9, 14] Lysimachia europaea (L.) U.Manns & Anderb. [= Trientalis europaea L.] [1, 2, 3, 4, 5] Lysimachia maritima (L.) Galasso [= Glaux maritima L.] [1–16] Lysimachia thyrsiflora L. [= Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14] Primula algida Adams [1–3, 6, 7, 11, 13] Primula bukukunica Kovt. [7, 11, 13] Primula cortusoides L. [3] Primula farinosa L. [1–4, 6, 7, 10, 13, 15] Primula matthioli subsp. altaica (Losinsk.) Kovt. [= Cortusa altaica Losinsk.] [1, 2, 3, 7, 13, 14] Primula matthioli subsp. brotheri (Pax) Kovt. [= Cortusa matthioli f. brotheri Pax]
Androsace feltschenkoi Ovcz. $[1, 6, 7, 13]$ Androsace filiformis Retz. $[1, 2, 3, 4, 5, 9]$ Androsace gmelinii Gaertin. $[2, 3, 9, 11]$ Androsace incana Lam. $[1-9, 13]$ Androsace lactiflora Fisch. $[=$ Androsace amurensis Prob.] $[1-4, 6, 7, 9, 14]$ Androsace lehmanniana Spreng. $[=$ Androsace bungeana Schischk. & Bobrov]  In Example 1, 2, 3, 6, 7, 9, 14] Androsace longifolia Turcz. $[5, 9]$ Androsace maxima L. $[2-4, 6-10, 13-15]$ Androsace maxima L. $[2-4, 6-10, 13-15]$ Androsace ovczinnikovii Schischk. & Bobrov $[3, 6, 7]$ Androsace ovczinnikovii Schischk. & Bobrov $[3, 6, 7]$ Androsace septentrionalis L. $[1-9, 12-14]$ Androsace villosa L. var. dasyphylla (Bunge) Kar. & Kir. $[\equiv$ Androsace dasyphylla Bunge] $[1, 2, 3, 6, 7, 13]$ Lysimachia davurica Ledeb. $[2, 3, 4, 5, 9, 14]$ Lysimachia europaea (L.) U.Manns & Anderb. $[\equiv$ Trientalis europaea L.]  [1, 2, 3, 4, 5] Lysimachia maritima (L.) Galasso $[\equiv$ Glaux maritima L.] $[1-16]$ Lysimachia thyrsiflora L. $[\equiv$ Naumburgia thyrsiflora (L.) Rchb.] $[2-5, 9, 10, 14]$ Primula algida Adams $[1-3, 6, 7, 11, 13]$ Primula cortusoides L. $[7, 11, 13]$ Primula cortusoides L. $[7, 11, 13]$ Primula farinosa L. $[1-4, 6, 7, 10, 13, 15]$ Primula matthioli subsp. altaica (Losinsk.) Kovt. $[\equiv$ Cortusa altaica Losinsk.]  [1, 2, 3, 7, 13, 14] Primula matthioli subsp. brotheri (Pax) Kovt. $[\equiv$ Cortusa matthioli f. brotheri Pax]
Androsace filiformis Retz. $[1, 2, 3, 4, 5, 9]$ Androsace gnelinii Gaertn. $[2, 3, 9, 11]$ Androsace incana Lam. $[1-9, 13]$ Androsace lactiflora Fisch. $[=$ Androsace amurensis Prob.] $[1-4, 6, 7, 9, 14]$ Androsace lehmanniana Spreng. $[=$ Androsace bungeana Schischk. & Bobrov $[1, 2, 3, 6, 7, 9]$ Androsace longifolia Turcz. $[5, 9]$ Androsace maxima L. $[2-4, 6-10, 13-15]$ Androsace ovczinnikovii Schischk. & Bobrov $[3, 6, 7]$ Androsace ovczinnikovii Schischk. & Bobrov $[3, 6, 7]$ Androsace septentrionalis L. $[1-9, 12-14]$ Androsace villosa L. var. dasyphylla (Bunge) Kar. & Kir. $[\equiv$ Androsace dasyphylla Bunge] $[1, 2, 3, 6, 7, 13]$ Lysimachia davurica Ledeb. $[2, 3, 4, 5, 9, 14]$ Lysimachia europaea (L.) U.Manns & Anderb. $[\equiv$ Trientalis europaea L.] $[1, 2, 3, 4, 5]$ Lysimachia maritima (L.) Galasso $[\equiv$ Glaux maritima L.] $[1-16]$ Lysimachia thyrsiflora L. $[\equiv$ Naumburgia thyrsiflora (L.) Rchb.] $[2-5, 9, 10, 14]$ Primula algida Adams $[1-3, 6, 7, 11, 13]$ Primula cortusoides L. $[7, 11, 13]$ Primula farinosa L. $[7, 11, 13]$ Primula farinosa L. $[1-4, 6, 7, 10, 13, 15]$ Primula matthioli subsp. altaica (Losinsk.) Kovt. $[\equiv$ Cortusa altaica Losinsk.] $[1, 2, 3, 7, 13, 14]$ Primula matthioli subsp. brotheri (Pax) Kovt. $[\equiv$ Cortusa matthioli f. brotheri Pax]
Androsace gmelinii Gaertn.  Androsace incana Lam.  [1–9, 13]  Androsace lactiflora Fisch. [= Androsace amurensis Prob.]  Androsace lehmanniana Spreng. [= Androsace bungeana Schischk. & Bobrov]  [1, 2, 3, 6, 7, 9]  Androsace longifolia Turcz.  [5, 9]  Androsace maxima L.  [2–4, 6–10, 13–15]  Androsace ovezinnikovii Schischk. & Bobrov  [3, 6, 7]  Androsace vezinnikovii Schischk. & Bobrov  [4]  Androsace septentrionalis L.  [5]  Androsace velllosa L. var. dasyphylla (Bunge) Kar. & Kir.  [5]  [6]  Androsace dasyphylla Bunge]  [7]  [8]  Lysimachia davurica Ledeb.  [9]  [1, 2, 3, 4, 5, 9, 14]  Lysimachia europaea (L.) U.Manns & Anderb. [= Trientalis europaea L.]  [1, 2, 3, 4, 5]  Lysimachia maritima (L.) Galasso [= Glaux maritima L.]  [1, 2, 3, 4, 5]  Lysimachia thyrsiflora L. [= Naumburgia thyrsiflora (L.) Rchb.]  [1–5, 9,  10, 14]  Primula algida Adams  [1–3, 6, 7, 11, 13]  Primula cortusoides L.  [7, 11, 13]  Primula farinosa L.  [1–4, 6, 7, 10, 13, 15]  Primula matthioli subsp. altaica (Losinsk.) Kovt. [= Cortusa altaica Losinsk.]  [1, 2, 3, 7, 13, 14]  Primula matthioli subsp. brotheri (Pax) Kovt. [= Cortusa matthioli f. brotheri Pax]
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Lysimachia davurica Ledeb. [2, 3, 4, 5, 9, 14] Lysimachia europaea (L.) U.Manns & Anderb. [ $\equiv$ Trientalis europaea L.]  [1, 2, 3, 4, 5] Lysimachia maritima (L.) Galasso [ $\equiv$ Glaux maritima L.] [1–16] Lysimachia thyrsiflora L. [ $\equiv$ Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14] Primula algida Adams [1–3, 6, 7, 11, 13] Primula bukukunica Kovt. [7, 11, 13] Primula cortusoides L. [3] Primula farinosa L. [1–4, 6, 7, 10, 13, 15] Primula longiscapa Ledeb. [3, 6, 7, 10, 13, 14] Primula matthioli subsp. altaica (Losinsk.) Kovt. [ $\equiv$ Cortusa altaica Losinsk.]  [1, 2, 3, 7, 13, 14] Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
Lysimachia europaea (L.) U.Manns & Anderb. [ $\equiv$ Trientalis europaea L.] [1, 2, 3, 4, 5]  Lysimachia maritima (L.) Galasso [ $\equiv$ Glaux maritima L.] [1–16]  Lysimachia thyrsiflora L. [ $\equiv$ Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14]  Primula algida Adams [1–3, 6, 7, 11, 13]  Primula bukukunica Kovt. [7, 11, 13]  Primula cortusoides L. [3]  Primula farinosa L. [1–4, 6, 7, 10, 13, 15]  Primula longiscapa Ledeb. [3, 6, 7, 10, 13, 14]  Primula matthioli subsp. altaica (Losinsk.) Kovt. [ $\equiv$ Cortusa altaica Losinsk.]  [1, 2, 3, 7, 13, 14]  Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
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Lysimachia maritima (L.) Galasso [ $\equiv$ Glaux maritima L.] [1–16] Lysimachia thyrsiflora L. [ $\equiv$ Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14] Primula algida Adams [1–3, 6, 7, 11, 13] Primula bukukunica Kovt. [7, 11, 13] Primula cortusoides L. [3] Primula farinosa L. [1–4, 6, 7, 10, 13, 15] Primula longiscapa Ledeb. [3, 6, 7, 10, 13, 14] Primula matthioli subsp. altaica (Losinsk.) Kovt. [ $\equiv$ Cortusa altaica Losinsk.] Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
Lysimachia thyrsiflora L. [ $\equiv$ Naumburgia thyrsiflora (L.) Rchb.] [2–5, 9, 10, 14]  Primula algida Adams [1–3, 6, 7, 11, 13]  Primula bukukunica Kovt. [7, 11, 13]  Primula cortusoides L. [3]  Primula farinosa L. [1–4, 6, 7, 10, 13, 15]  Primula longiscapa Ledeb. [3, 6, 7, 10, 13, 14]  Primula matthioli subsp. altaica (Losinsk.) Kovt. [ $\equiv$ Cortusa altaica Losinsk.]  Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
Primula algida Adams $ [1-3, 6, 7, 11, 13] $ Primula bukukunica Kovt. $ [7, 11, 13] $ Primula cortusoides L. $ [3] $ Primula farinosa L. $ [1-4, 6, 7, 10, 13, 15] $ Primula longiscapa Ledeb. $ [3, 6, 7, 10, 13, 14] $ Primula matthioli subsp. altaica (Losinsk.) Kovt. $ [\equiv \textit{Cortusa altaica Losinsk.}] $ $ [1, 2, 3, 7, 13, 14] $ Primula matthioli subsp. brotheri (Pax) Kovt. $ [\equiv \textit{Cortusa matthioli f. brotheri Pax] } $
Primula algida Adams $[1-3, 6, 7, 11, 13]$ Primula bukukunica Kovt. $[7, 11, 13]$ Primula cortusoides L. $[3]$ Primula farinosa L. $[1-4, 6, 7, 10, 13, 15]$ Primula longiscapa Ledeb. $[3, 6, 7, 10, 13, 14]$ Primula matthioli subsp. altaica (Losinsk.) Kovt. [ $\equiv$ Cortusa altaica Losinsk.] $[1, 2, 3, 7, 13, 14]$ Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
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Primula longiscapa Ledeb. [3, 6, 7, 10, 13, 14] Primula matthioli subsp. altaica (Losinsk.) Kovt. [ $\equiv$ Cortusa altaica Losinsk.] [1, 2, 3, 7, 13, 14] Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
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[1, 2, 3, 7, 13, 14] Primula matthioli subsp. brotheri (Pax) Kovt. [ $\equiv$ Cortusa matthioli f. brotheri Pax]
Primula matthioli subsp. brotheri (Pax) Kovt. [≡ Cortusa matthioli f. brotheri Pax]
5-1
Primula maximowiczii Regel [5]
Primula nivalis subsp. nivalis Pall. [1, 2, 3, 6, 7, 10]
Primula nivalis subsp. turkestanica (J.N.Haage & E.Schmidt) Kovt. [1, 3]
Primula nivalis subsp. xanthobasis (Fed.) Halda [1, 2, 3]
Primula nutans Georgi [1–7, 9, 10, 11]
Primula serrata Georgi [1–5, 7–10, 13]

### **92. Ranunculaceae** Juss. (20 genera and 156 taxa)

Note: In regards to the phylogeny and position of *Actea* and *Cimcifuga*, we follow Compton et al. (1998). *Anemone* is considered here according to Hoot (2012) with some changes leaving *Pulsatilla* at generic level (Sramkó et al. 2019). The taxonomy of the tribe Ranunculae is given according to Emadzade (2010) and Wang et al. (2014). The taxonomical positions of some taxa have been changed according to taxonomic works (Solovjev 1998; Erst 2007). Previously, four species of *Batrachium* were recorded in Mongolia which are treated as a synonym of *Ranunculus* by Wiegleb et al. (2017). Taxonomic revision of the genus *Aquilegia* L. was carried out by Erst et al. (2016).

	Aconitum ambiguum Rchb.	[1, 2, 3, 4, 10]
	Aconitum anthoroideum DC.	[3, 7]
	Aconitum baicalense Turcz. [≡ Aconitum ambiguum R	chb. subsp. <i>baicalense</i>
	(Turcz.) Vorosch.]	[2, 3, 4, 5, 9]
	Aconitum barbatum Patr.	[1–4, 6–8, 10, 11, 13]
	Aconitum biflorum Fisch.	[3, 7]
	Aconitum coreanum (H.Lév.) Rapaics	[5]
	Aconitum decipiens Vorosch. & Anfalov	[3, 7]
	Aconitum glandulosum Rapaics [=Aconitum altaicum	Steinb.
	= Aconitum smirnovii Steinb.]	[1-4, 6, 7, 13, 14]
E	Aconitum gubanovii Luferov & Vorosch.	[7, 14]
E	Aconitum kamelinii A.A.Solovjev [= Aconitum chasma	anthum Stapf] [3, 13]
SE	Aconitum khanminthunii A.A.Solovjev & Shmakov	[3, 6, 7, 11, 13]
	Aconitum kusnezoffii Rchb. [= Aconitum birobidshani	cum Vorosch.] [5, 9]
	Aconitum leucostomum Vorosch.	[6, 7, 8, 10]
	Aconitum macrorhynchum Turcz.	[4]
SE	Aconitum paskoi Vorosch.	[2, 3]
	Aconitum ranunculoides Turcz.	[4]
SE	Aconitum rubicundum (Ser.) Fisch. [≡ Aconitum septe	entrionale subsp. rubicun-
	dum (Ser.) Vorosch.]	[1]
	Aconitum septentrionale Koelle	[1-4, 6, 7, 8]
SE	Aconitum turczaninowii Vorosch.	[2, 3, 4, 5, 9]
	Aconitum volubile Koelle	[2, 3, 7]
	Actaea cimicifuga L. [≡ Cimicifuga foetida L.]	[1, 2, 3, 4]
	Actaea dahurica (Turcz.) Franch. [≡ Cimicifuga dahur	rica (Turcz.) Maxim.]
		[2, 5, 9]
	Actaea erythrocarpa (Fisch.) Kom.	[1, 2, 3, 4]
	Actaea simplex Prantl	[5]
	Adonis apennina L. [= Adonis sibirica Patrin]	[1, 2, 3, 4, 6, 8]
E	Adonis mongolica Simonovich	[1, 2, 3, 4, 8]
	Anemonastrum crinitum (Juz.) Holub [≡ Anemone na	rcissiflora subsp.
	crinita (Juz.) Kitag.]	[1, 2, 3, 4, 6, 7]
	Anemonastrum dichotomum (L.) Mosyakin [≡ Anemo	ne dichotoma L.]
		[2, 3, 4, 5, 9]

	Anemonastrum obtusilobum (D.Don) Mosyakin [≡ Anemo	one obtusiloba Lindl.]
	An ann an actuaran cibini arum (I) Halub [= An ann an a cibini a	
	Anemonastrum sibiricum (L.) Holub [ $\equiv$ Anemone sibirica Anemone reflexa Steph.	L.] [1, 2, 4] [2, 3, 4]
	Anemone sylvestris L. $\equiv$ Anemonoides sylvestris (L.) Galasso	
	Aquilegia amurensis Kom.	$\begin{bmatrix} 1-7, 9 \end{bmatrix}$ [2]
	Aquilegia aradanica Shaulo & Erst	[4]
E	Aquilegia daingolica Erst & Shaulo	[7]
L	Aquilegia ganboldii Kamelin & Gubanov	[5]
	Aquilegia glandulosa Fisch.	[1, 4, 6, 7]
E	Aquilegia grubovii Erst	[1, 2, 3, 4]
L	Aquilegia jucunda Fisch. & Lallem.	$\begin{bmatrix} 1, 2, 3, 1 \end{bmatrix}$
	Aquilegia sibirica Lam.	[1, 2, 3, 4, 6, 7]
	Aquilegia viridiflora Pall.	[2-5, 7-10, 12, 13]
	Aquilegia xinjiangensis Erst	[7]
	Callianthemum angustifolium Witasek	[7]
	Callianthemum isopyroides Witasek	[1, 2, 3]
	Callianthemum sajanense Witasek	[1, 3, 7]
	Caltha membranacea (Turcz.) Schipcz.	[5]
	Caltha natans (Pall.) Deyl & Sojak	[1–5, 8, 10, 11]
	Caltha palustris L.	[1–5, 9–11]
	Ceratocephala testiculata (Crantz) Besser	[7]
	Clematis aethusifolia Turcz.	[9]
	Clematis brevicaudata DC.	[5, 9]
SE	Clematis fruticosa Turcz.	[11–13, 15, 16]
	Clematis glauca Willd.	[3, 7, 10, 14, 15]
	Clematis hexapetala Pall.	[2, 4, 5, 8, 9]
	Clematis intricata Bunge	[7–14, 16]
	Clematis macropetala Ledeb.	[9]
	Clematis ochotensis (Pall.) Poir. & Lam.	[4]
	Clematis orientalis L.	[15]
	Clematis sibirica (L.) Mill.	[1-4, 6-8, 10, 13]
	Clematis songarica Siev.	[7, 11–16]
SE	Clematis tangutica subsp. mongolica Grey-Wilson	[2]
	Clematis tangutica Korsh. subsp. tangutica [2	2–4, 7, 8, 10, 13–15]
	Delphinium altaicum Nevski	[6, 7, 13, 14]
	Delphinium barlykense Lomon. & Khanm.	[1, 6, 7]
E	Delphinium changaicum N.Friesen	[3, 13]
	Delphinium cheilanthum Fisch.	[1–4, 6, 7, 8, 13]
	Delphinium crassifolium Schrad.	[1, 2, 3, 5, 6, 7]
	Delphinium dictyocarpum DC.	[7]
SE	Delphinium dissectum Huth	[1, 3, 4, 8]
	Delphinium elatum L.	[1, 3, 6, 7]

	Delphinium grandiflorum L.	[1–5, 9, 13]
E	Delphinium gubanovii N.Friesen	[7]
	Delphinium iliense Huth	[14]
	Delphinium inconspicuum Serg. subsp. inconspicuum	[3, 6, 7, 14]
E	Delphinium inconspicuum subsp. mongolicum A.L.Ebel	[7]
SE	Delphinium malyschevii N.Friesen	[1]
0.2	Delphinium mirabile Serg.	[6, 7]
SE	Delphinium sajanense Jurtzev	[1]
	Delphinium triste Fisch.	[1, 2, 3, 4, 8, 13]
	Delphinium ukokense Serg.	[6, 7]
	Halerpestes salsuginosa Greene	[1–4, 6–15]
	Halerpestes sarmentosa (Adams) Kom. & KlobAlis	[3, 4, 6–16]
	Isopyrum anemonoides Kar. & Kir.	[7]
	Leptopyrum fumarioides Rchb.	[1–4, 6–9, 13]
	Oxygraphis glacialis (Fisch.) Bunge	[1, 2, 3, 6, 7, 13]
	Paraquilegia anemonoides Ulbr.	[1, 6, 7]
	Pulsatilla ambigua Turcz.	[1–4, 6, 7, 13]
SE	Pulsatilla bungeana C.A.Mey. [= Pulsatilla bungeana var. astr	
	Grubov]	[1-11, 13]
	Pulsatilla campanella Fisch.	[1, 3, 6, 7, 14]
	Pulsatilla dahurica (Fisch.) Spreng.	[3, 9]
	Pulsatilla multifida (G.Pritz.) Juz. [ $\equiv$ Pulsatilla patens subsp.	
	(G.Pritz.) Zämelis]	[3, 4, 6, 7]
	Pulsatilla patens (L.) Mill. subsp. flavescens (Zucc.) Zämelis	[8, -, -, -, -]
	[≡ Pulsatilla flavescens (Zucc.) Juz.]	[1, 2, 3, 4, 5, 7]
	Pulsatilla tenuiloba (Hayek) Juz.	[2, 3, 4, 9]
	Pulsatilla turczaninovii Krylov & Serg.	[1-6, 8, 9]
	Ranunculus acris L.	[1–5, 7, 8, 9, 10]
	Ranunculus altaicus Laxm.	[1, 2, 3, 6, 7]
	Ranunculus aquatilis L.	[3, 5, 9]
E	Ranunculus arschantynicus Kamelin, Shmakov & S.V.Smirn.	
	Ranunculus chinensis Bunge	[2, 3, 4, 6, 10]
	Ranunculus circinatus Sibth.	[3, 4, 5, 9, 10]
	Ranunculus confervoides (Fr.) Fr. [= Ranunculus trichophyllus	
	eradicatus (Laest.) C.D.K.Cook]	[2, 5–10]
	Ranunculus gmelinii DC.	[1, 2, 4, 5, 9]
	Ranunculus gobicus Maxim.	[13]
	Ranunculus grandifolius C.A.Mey.	[3]
	Ranunculus kauffmannii Clerc [≡ Batrachium kauffmannii (	
		[2, 7]
	Ranunculus lapponicus L.	[1, 2, 3, 6, 7, 13]
SE	Ranunculus lasiocarpus C.A.Mey.	[1, 3, 6, 7]
	Ranunculus lingua L.	[14]

	Ranunculus longicaulis C.A.Mey.	[1–3, 6, 7, 11, 14]
	Ranunculus mongolicus (Krylov) Serg. [≡ Batrachium mong	colicum Serg.]
		[3, 6, 7, 10, 11]
	Ranunculus monophyllus Ovcz.	[1–7]
		[1–4, 6–10, 13, 15]
	Ranunculus pedatifidus Sm. [= Ranunculus rigescens Turcz.]	
	Ranunculus polyanthemos L.	[6]
	Ranunculus propinguus C.A.Mey. subsp. propinguus	[1–4, 6–8, 10]
	Ranunculus propinquus var. subborealis (Tzvel.) Luferov	[1, 2, 3, 4]
	Ranunculus pseudohirculus Schrenk	[1–3, 6, 7, 13, 14]
SE	Ranunculus pseudomonophyllus Timokhina	[1, 2]
	Ranunculus pulchellus C.A.Mey.	[1–4, 6–10, 13]
	Ranunculus radicans C.A.Mey.	[1–8, 10, 13]
	Ranunculus repens L.	[2–9]
	Ranunculus reptans L.	[1, 2, 4, 7, 10]
E	Ranunculus sapozhnikovii Schegol.	[7]
	Ranunculus sceleratus L.	[1–9, 11, 13, 14]
SE	Ranunculus schmakovii Erst	[7]
	Ranunculus smirnovii Ovcz.	[2]
	Ranunculus sulphureus subsp. exaltatus Erst	[7]
	Ranunculus tanguticus (Maxim) Ovcz.	[3, 6]
	Ranunculus trautvetterianus Regel	[7]
	Ranunculus trichophyllus Chaix [≡ Batrachium trichophyllu	m (Chaix) Bosch
	= Batrachium divaricatum (Schrank) Schur]	[1-11, 14]
SE	Ranunculus turczaninovii (Luferov) Vorosch.	[2]
SE	Ranunculus tuvinicus Erst	[7]
	Thalictrum alpinum L.	[1-4, 6, 7, 13]
	Thalictrum baicalense Turcz.	[2, 5]
	Thalictrum contortum L. [= Thalictrum aquilegiifolium var.	sibiricum
	Regel & Tiling]	[5, 9]
	Thalictrum foetidum L.	[1–4, 6–10, 13, 14]
	Thalictrum isopyroides C.A.Mey.	[7, 14]
SE	Thalictrum minus subsp. appendiculatum (C.A.Mey.) Gub	anov [≡ <i>Thalictrum</i>
	appendiculatum C.A.Mey.]	[3]
	Thalictrum minus subsp. elatum (Jacq.) Stoj. & Stef.	
	[= <i>Thalictrum minus</i> subsp. <i>kemense</i> (Fries) Cajander]	[3]
	Thalictrum minus L. subsp. minus	[1-10, 13, 14]
	Thalictrum petaloideum L.	[1, 2, 3, 4, 5, 9]
SE	Thalictrum schischkinii N.Friesen [= Thalictrum altaicum (Sc	
	Thalictrum simplex L.	[1-10, 13, 14]
	Thalictrum squarrosum Steph.	[2, 3, 4, 5, 8, 9]
	Trollius altaicus C.A.Mey.	[6, 7, 14]
	Trollius asiaticus L.	[1-4, 6, 7, 9, 13]

	Trollius austrosibiricus Erst & Luferov Trollius chinensis Bunge Trollius dschungaricus Regel Trollius ledebourii Rchb. Trollius lilacinus Bunge Trollius sajanensis (Malyschev) Sipliv. Trollius sibiricus Schipcz. Trollius vicarius Sipliv.	[7] [7] [14] [2, 3, 4, 5, 9] [1, 2, 6, 7] [1] [5] [5]
	93. Rhamnaceae Juss. (1 genus and 5 species)	
	Rhamnus davurica Pall.	[2, 4]
	Rhamnus erythroxylon Pall.	[2-4, 8, 9, 12, 13]
	Rhamnus maximovicziana J.J.Vassil.	[13, 16]
	Rhamnus parvifolia Bunge	[2, 4, 5, 9]
	Rhamnus utilis Decne.	[4, 5, 9]
	94. Rosaceae Juss. (28 genera and 168 taxa)	
	Agrimonia pilosa Ledeb.	[1-6, 9]
	Alchemilla argutiserrata H.Lindb.	[7]
E	Alchemilla changaica V.N.Tikhom.	[1, 3]
	Alchemilla circularis Juz.	[7]
	Alchemilla cyrtopleura Juz.	[3, 7]
	Alchemilla flavescens Buser	[3]
	Alchemilla gracilis Pax	[3]
	Alchemilla gubanovii V.N.Tikhom.	[2, 3]
	Alchemilla hebescens Juz.	[2, 3, 7]
	Alchemilla krylovii Juz.	[7]
	Alchemilla murbeckiana Buser	[7]
SE	Alchemilla pavlovii Juz.	[2, 3, 6]
	Argentina anserina (L.) Rydb. $\equiv Potentilla$ anserina L.]	[1–11, 13–15]
	Aruncus sylvester Kostel.	[5]
	Chamaerhodos altaica Bunge	[1–4, 6–8, 10, 11, 13]
SE	Chamaerhodos corymbosa Murav.	[5, 9]
	Chamaerhodos erecta (L.) Bunge	[1-13]
	Chamaerhodos grandiflora Ledeb.	[5]
	Chamaerhodos sabulosa Bunge	[3, 6–16]
	Chamaerhodos trifida Ledeb.	[4, 5, 8, 9, 12, 13]
	Coluria geoides (Pall.) Ledeb. $[\equiv Dryas geoides Pall.]$	[3,6]
	Comarum palustre L.	[1, 2, 3, 4, 6]
	Cotoneaster megalocarpus Popov	[7]
	Cotoneaster melanocarpus Lodd.	[1–10, 13, 14]
	Cotoneaster mongolicus Pojark.	[2–5, 7–9, 12, 13]
	Cotoneaster neopopovii Czerep.	[4]

	Cotoneaster uniflorus Bunge	[1, 2, 3, 7, 8, 13]
	Crataegus dahurica Koehne	[2, 4, 5, 9]
	Crataegus maximowiczii C.K.Schneid.	[5]
	Crataegus sanguinea Pall.	[2, 3, 4, 5, 9]
	Dasiphora fruticosa (L.) Rydb. [≡ Potentilla fruticosa L	.] [1–9, 11, 13]
	Dasiphora parvifolia (Fisch.) Juz. [≡ Potentilla parvifol	<i>ia</i> Fisch.] [2, 3, 4, 6, 8]
	Dryas grandis Juz.	[1, 7]
	Dryas incisa Juz.	[1]
	Dryas oxyodonta Juz.	[1, 2, 3, 4, 6, 7]
	Dryas punctata Juz.	[1,3]
SE	Dryas sumneviczii Serg.	[1]
	Farinopsis salesoviana (Steph.) Chrtek & Soják	
	[≡ Comarum salesovianum (Steph.) Ledeb]	[6, 7, 10, 11, 13, 14]
	Filipendula angustiloba Maxim.	[5, 9]
	Filipendula palmata Maxim.	[2, 3, 4, 5, 9]
	Filipendula ulmaria (L.) Maxim.	[2, 3, 4]
	Fragaria orientalis Losinsk.	[2, 3, 4, 5]
	Fragaria viridis Weston	[2]
	Geum aleppicum Jacq.	[2, 3, 4, 5, 9]
	Geum rivale L.	[7]
	Malus baccata (L.) Borkh.	[2, 3, 4, 5, 8, 9]
SE	Potaninia mongolica Maxim.	[11, 12, 13, 16]
	Potentilla acaulis L.	[1-11, 13]
	Potentilla acervata Soják [= Potentilla chenteica Soják]	[2–5, 8, 9, 13]
	Potentilla agrimonioides M.Bieb. [= Potentilla lydiae K	urbatski] [7, 14]
	Potentilla altaica Bunge [= Potentilla nivea L. var. pinn	natifida Lehm.] [7]
	Potentilla angustiloba T.T.Yu & C.L.Li	[7, 14]
	Potentilla aphanes Soják	[3, 6, 7, 10, 13, 14]
	Potentilla arenosa (Turcz.) Juz. [≡ Potentilla nivea var.	arenosa Turcz.]
		[2, 3, 4, 6]
	Potentilla asiatica (Th.Wolf) Juz.	[7]
	Potentilla astragalifolia Bunge	[3, 6, 7, 10, 11]
SE	Potentilla × burjatica Soják	[2]
	Potentilla chalchorum Soják	[2, 3, 7, 9]
SE	Potentilla × chamaeleo Soják	[6, 7, 14]
	Potentilla chinensis Ser.	[4, 5, 9]
	Potentilla chionea Soják	[1–4, 10, 13, 14]
	Potentilla chrysantha Trevir.	[7, 14]
	Potentilla conferta Bunge	[1-9, 12, 13, 14]
E	Potentilla coriacea Soják	[3]
	Potentilla crantzii (Crantz) Fritsch	[7]
	Potentilla crebridens Juz. [= Potentilla nivea var. elonga	ta Th.Wolf] [1, 2, 3, 10]
	Potentilla desertorum Bunge	[1, 6, 7, 9, 12–14]

SE	Potentilla × drymeja Soják	[2, 3, 13]
E	Potentilla ekaterinae Kamelin ex Kechaykin	[13]
	Potentilla elegans Cham. & Schltdl.	[1]
	Potentilla elegantissima Polozhij	[3]
	Potentilla evestita Th.Wolf	[1-4, 6, 7, 13, 14]
	Potentilla exuta Soják	[3, 7, 13, 14]
	Potentilla flagellaris D.F.K.Schltdl.	[2, 3, 4, 5, 9]
	Potentilla fragarioides L.	[2, 3, 4, 5, 7]
	Potentilla gelida C.A.Mey.	[1–3, 6, 7, 9, 13, 14]
E	Potentilla gobica Soják	[14]
SE	Potentilla gracillima Kamelin	[3, 7, 10]
E	Potentilla hilbigii Soják	[3]
E	Potentilla hubsugulica Soják	[1]
E	Potentilla ikonnikovii Juz.	[7, 13]
E	Potentilla inopinata Soják	[6, 7]
	Potentilla jenissejensis Polozhij & W.Smirnova	[-7.7]
	[= Potentilla agrimonioides M.Bieb. var. kobdoensis S	Soják] [6, 7, 10]
	Potentilla kryloviana Th.Wolf	[3, 7, 14]
E	Potentilla laevipes Soják	[7]
E	Potentilla laevissima Kamelin	[7]
	Potentilla leucophylla Pall. [= Potentilla betonicifolia Poir	
	Potentilla longifolia D.F.K.Schltdl.	[1–13]
Ε	Potentilla mongolica Krasch.	[3, 8]
	Potentilla multicaulis Bunge	[1,3]
	Potentilla multifida L. [= Potentilla tenella Turcz.]	[1–14]
	Potentilla nivea L.	[1-4, 6, 7, 13, 14]
	Potentilla norvegica L. [= Potentilla monspeliensis L.]	[1, 2, 3, 4]
	Potentilla nudicaulis D.F.K.Schltdl. [= Potentilla strigosa	
SE	Potentilla × olchonensis Peschkova	[6]
	Potentilla ornithopoda Tausch	[1-4, 6, 7, 10, 14]
SE	Potentilla ozjorensis Peschkova	[1, 3, 4, 7]
	Potentilla pamirica Th.Wolf	[6, 7, 10, 14]
	Potentilla pamiroalaica Juz.	[14]
	Potentilla pensylvanica L. [≡ Pentaphyllum pennsylvanica	
		[1–11, 13, 14]
	Potentilla regeliana Th.Wolf	[6]
SE	Potentilla × rhipidophylla Soják	[3]
SE	Potentilla rigidula Th. Wolf	[6, 10]
	Potentilla sanguisorba D.F.K.Schltdl.	[1, 2, 3, 4, 12, 13]
E	Potentilla schmakovii Kechaykin	[7, 14]
SE	Potentilla sergievskajae Peschkova	[5, 8]
	Potentilla sericea L.	[1–4, 6–13, 15]
SE	Potentilla serrata Soják	[3]
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SE	Potentilla sischanensis Bunge	[4, 9]
	Potentilla songorica Bunge	[10, 14]
SE	Potentilla stepposa Soják	[7, 10]
	Potentilla subdigitata T.T.Yu & C.L.Li	
	[= <i>Potentilla junatovii</i> Rudaya & A.L.Ebel]	[7]
		1–12, 14–16]
	Potentilla tanacetifolia D.F.K.Schltdl.	[2–9, 12, 13]
	Potentilla tergemina Soják	[2, 3, 4, 5, 9]
SE	Potentilla tericholica Sobolevsk.	[6, 7]
	Potentilla tetrandra (Bunge) Hook.f. [≡ Sibbaldia tetrandra Bung	
	Potentilla turczaninowiana Stschegl.	[6, 7, 14]
	Potentilla turkestanica Soják	[7, 14]
E	Potentilla tytthantha (Soják) Kechaykin	[6, 7]
E	Potentilla × vanzhilii Gundegmaa & Kechaykin	[3]
		, 3, 4, 5, 8, 9]
	1	1, 3, 4, 6–15]
	Prunus mongolica Maxim. [ $\equiv$ Amygdalus mongolica (Maxim.) Ricker	_
		, 2, 3, 4, 5, 9]
	Prunus pedunculata (Pall.) Maxim. [\equiv Amygdalus pedunculata Pal	
		6–13, 16]
	Prunus sibirica L. [ $\equiv$ Armeniaca sibirica (L.) Lam.]	[2, 3, 4, 5, 9]
	Rosa acicularis Lindl.	[1–9, 13]
	Rosa albertii Regel	[7]
E	Rosa baitagensis Kamelin & Gubanov	[14]
	Rosa beggeriana Schrenk	[14]
	Rosa davurica Pall.	[2, 4, 5, 9]
	Rosa kokanica (Regel) Regel	[7]
	Rosa laxa var. kaschgarica (Rupr.) Y.L.Han [= Rosa kaschgarica Ru	upr.] [14, 15]
		7, 13, 14, 15]
	Rosa oxyacantha M.Bieb.	[1, 2, 3, 7]
	Rosa platyacantha Schrenk	[14]
	Rosa spinosissima L.	[3, 7, 14]
	Rosa xanthina Lindl.	[9]
	Rubus arcticus L.	[1, 2, 3, 4]
	Rubus chamaemorus L.	[2]
	Rubus humilifolius C.A.Mey.	[1, 2]
	Rubus sachalinensis H.Lév. [1	, 2, 3, 4, 7, 8]
	Rubus saxatilis L. [1	, 2, 3, 4, 5, 9]
	Sanguisorba alpina Bunge	[3, 6, 7]
	Sanguisorba officinalis L.	[1-11]
	Sanguisorba parviflora (Maxim.) Takeda	[9]
	Sanguisorba tenuifolia Fisch.	[4, 9]
	Sibbaldia procumbens L.	[2, 7]

	Sibbaldianthe adpressa (Bunge) Juz. [≡ Sibbaldia adpressa : Sibbaldianthe bifurca (L.) Kurtto & T.Erikss. [≡ Potenti	illa bifurca L.] [1–14]
	Sibbaldianthe imbricata (Kar. & Kir.) Mosyakin & Shiy	
	[= Potentilla imbricata Kar. & Kir.]	[6, 7, 10, 14]
	Sibbaldianthe orientalis (Soják) Mosyakin & Shiyan	[7 0 0 1/]
	[= Potentilla bifurca var. major Ledeb.]	[7, 8, 9, 14]
	Sibbaldianthe semiglabra (Soják) Mosyakin & Shiyan	[ج ۱۵]
CE	[≡ Potentilla semiglabra Juz.]	[5, 9]
SE	Sibbaldianthe sericea Grubov	[7, 8, 12, 13]
	Sibiraea laevigata (L.) Maxim.	[7]
	Sorbaria sorbifolia (L.) A.Braun	[4,5]
	Sorbus aucuparia L. subsp. glabrata (Wimm. & Grab.)	
	[= Sorbus sibirica Hedl.]	[1, 2, 3, 4, 5]
	Spiraea alpina Pall.	[1, 2, 3, 6, 7]
	Spiraea aquilegiifolia Pall.	[1–5, 8, 9, 12, 13]
	Spiraea chamaedryfolia L.	[5]
	Spiraea dahurica (Rupr.) Maxim.	[2, 4]
	<i>Spiraea elegans</i> Pojark.	[4]
	Spiraea flexuosa Fisch.	[1-6, 8, 9, 13]
	Spiraea hypericifolia L.	[2–4, 6, 7, 9, 10, 12,
	Spiraea media F.Schmidt subsp. media [= Spiraea sericea	14] <i>t</i> Turcz.] [ 1 – 8 , 13]
	Spiraea pubescens Turcz.	[4, 5, 9]
	Spiraea salicifolia L.	[2, 3, 4, 5, 9]
	95. Rubiaceae Juss. (3 genera and 13 taxa)	
E	Asperula gobicola Grubov [= Asperula saxicola Grubov]	[13, 16]
	Galium amblyophyllum Schrenk	[1, 2, 14]
	Galium boreale L.	[1-10, 13, 14]
	Galium dahuricum Turcz.	[2]
	Galium densiflorum Ledeb.	[3, 6, 7, 14]
	Galium humifusum M.Bieb.	[3, 7, 13]
	Galium songaricum Schrenk	[1, 2, 3]
	Galium spurium L.	[1–8, 10, 13, 14]
	Galium trifidum L.	[2–5, 7, 10, 14]
	Galium uliginosum L.	[1, 2, 3, 4, 10]
	Galium verum L. subsp. verum [= Galium densiflorum I	
	Galium verum subsp. wirtgenii (F.W.Schultz) Öborny	[7]
	Rubia cordifolia L. [≡ Galium cordifolium (L.) Kuntze]	L 3
	O6 Dunniages Harry (1 comes and 1 comes)	
	96. Ruppiaceae Horan. (1 genus and 1 species)	[10]
	Ruppia maritima L.	[10]

9	7. Rutaceae Juss. (2 genera and 2 species)	
	Haplophyllum dauricum (L.) G.Don	[2-6, 8, 9, 11-14, 16]
	Dictamnus albus L.	[5, 9]
9	<b>98. Salicaceae</b> Mirb. (2 genera and 47 species)	
	Populus euphratica Olivier	[12–16]
	Populus laurifolia Ledeb. [= Populus pilosa Rehder]	
	Populus simonii Carrière	[9]
	Populus suaveolens Fisch.	[1, 2, 3, 4]
	Populus tremula L.	[1-5, 7-9, 11]
	Salix abscondita Laksch.	[1, 2, 4, 5, 13]
	Salix alatavica Kar.	[6, 7]
	Salix arctica Pall.	[1, 3, 6, 7]
	Salix bebbiana Sarg.	[1-10, 12, 13]
	Salix berberifolia Pall.	[1, 2, 3, 6, 7, 13]
	Salix brachypoda (Trautv. & C.A.Mey.) Kom.	[2, 4, 5, 9]
	Salix caesia Vill.	[1-4, 6, 7, 10, 14]
	Salix divaricata Pall.	[1-4, 6, 7, 13]
	Salix glauca L.	[1, 2, 3, 6, 7, 13]
	Salix gmelinii Pall. [= Salix dasyclados Wimmer]	[2, 4, 6, 7, 8, 10]
	Salix gordejevii Y.L.Chang & Skvortsov	[5, 8, 9]
	Salix hastata L.	[1, 6, 7, 10, 13]
	Salix jenisseensis (F.Schmidt) Flod.	[1, 6, 7]
	Salix kochiana Trautv.	[1-5, 7, 10]
	Salix ledebouriana Trautv.	[1–4, 6, 7, 9–15]
	Salix microstachya Turcz.	[2–6, 8, 9, 10]
	Salix miyabeana Seemen	[1-5, 8, 9]
	Salix myrtilloides L.	[1, 2, 3]
SE	Salix nasarovii A.K.Skvortsov	[1]
	Salix nipponica Franch. & Sav.	[9]
	Salix nummularia Andersson	[2, 3, 6, 7]
	Salix polaris Wahlenb.	[1]
	Salix pseudopentandra (Flod.) Flod. [= Salix pentandra	
		[1–10, 12, 13]
	Salix pyrolifolia Ledeb.	[1-4, 6, 7, 10]
	Salix rectijulis Ledeb.	[1, 2, 3, 6, 7]
	Salix recurvigemmata A.K.Skvortsov [= Salix recurvige	emmis A.K.Skvortsov]
		[1, 3, 6]
	Salix reticulata L.	[1, 3, 6, 7]
	Salix rhamnifolia Pall.	[1–6, 9]
	Salix rorida Laksch.	[2, 3, 4, 5, 9]
	Salix rosmarinifolia L.	[1-4, 6, 10, 14]
	Salix sajanensis Nasarow	[1, 6, 7]

	Salix saposhnikovii A.K.Skvortsov	[1, 3, 6, 7]
	Salix saxatilis Turcz.	[1, 2, 3]
	Salix schwerinii E.L.Wolf	[2, 3, 4, 5, 9]
	Salix taraikensis Kimura	[1–5, 7, 13]
	Salix tenuijulis Ledeb.	[3, 7, 14, 15]
	Salix triandra L.	[1, 3, 4, 14]
	Salix turanica Nasarow	[6, 7, 10, 14]
	Salix turczaninowii Laksch.	[1, 2, 6, 7]
	Salix udensis Trautv. & C.A.Mey.	[9]
	Salix vestita Pursh	[1, 3, 6, 7]
	Salix viminalis L.	[3, 6, 7, 10, 11, 14]
90	O. Santalaceae R.Br. (1 genus and 6 species)	
	Thesium chinense Turcz.	[9]
	Thesium longifolium Turcz.	[2, 3, 4]
	Thesium refractum C.A.Mey.	[1-10, 13]
	Thesium repens Ledeb.	[1, 2, 3, 4]
SE	Thesium saxatile Turcz.	[1, 3-6, 8-10]
SE	Thesium tuvense Krasnob.	[5, 10]
10	<b>00. Saxifragaceae</b> Juss. (5 genera and 21 taxa)	
1	Bergenia crassifolia (L.) Fritsch	[1, 2, 3, 4, 7]
	Chrysosplenium nudicaule Bunge	[1, 2, 3, 1, 7] [6]
SE	Chrysosplenium peltatum Turcz.	[1,3]
SE	Chrysosplenium sedakowii Turcz.	[2, 3, 8]
02	Chrysosplenium serreanum HandMazz.	[2, 0, 0]
	[= Chrysosplenium alternifolium subsp. sibiricum (Ser.	.) Hultén] [1, 2, 4]
	Micranthes davurica (Willd.) Small [≡ Saxifraga davurica	
	Micranthes foliolosa (R.Br.) Gornall [≡ Saxifraga foliolosa	
	Micranthes hieraciifolia (Waldst. & Kit.) Haw.	
	[≡ Saxifraga hieraciifolia Waldst. & Kit.]	[1, 2, 3, 6, 7]
	Micranthes melaleuca (Fisch.) Losinsk.	
	[≡ Saxifraga melaleuca Fisch.]	[1, 2, 6, 7]
	Micranthes nelsoniana subsp. aestivalis (Fisch. & C.A.Me	y.) Elven &
	D.F.Murray [≡ Saxifraga aestivalis Fisch. & C.A.Mey	[1, 2, 3, 6]
	Micranthes nivalis (L.) Small [≡ Saxifraga nivalis L.]	[1]
	Mitella nuda L.	[1, 2, 4]
	Saxifraga bronchialis L. [= Saxifraga caulescens Sipliv.,	
	= Saxifraga spinulosa Adams]	[2, 3, 4, 8]
	Saxifraga cernua L.	[1–3, 6–9, 13]
	Saxifraga hirculus L.	[1–7, 13, 14]
	Saxifraga macrocalyx Tolm. [= Saxifraga flagellaris Willd.]	[1, 3, 6, 7, 13, 14]

Saxifraga oppositifolia L. subsp. oppositifolia [= Saxifr	
	[1, 3, 6, 7]
Saxifraga setigera Pursh	[1, 2, 3, 6, 7, 13]
Saxifraga sibirica L.	[1–3, 6–8, 10, 13, 14]
Saxifraga terektensis Bunge	[1, 3, 6, 7]
101. Scheuchzeriaceae F.Rudolphi (1 genus and 1 speci	ies)
Scheuchzeria palustris L.	[2]
<b>102. Scrophulariaceae</b> Juss. (3 genera and 6 species)	
Limosella aquatica L.	[1-4, 6, 7, 9-11, 13, 14]
Scrophularia altaica Murray	[1, 3, 6, 7]
Scrophularia canescens Bong. [= Scrophularia hilbigii	Jäger] [13, 14]
Scrophularia incisa Weinm.	[2-4, 6-15]
Scrophularia umbrosa Dumort.	[10]
Verbascum thapsus L.	[4]
<b>103. Solanaceae</b> Juss. (4 genera and 9 taxa)	
Hyoscyamus niger L.	[2-5, 7-10, 12, 13]
Hyoscyamus pusillus L.	[6, 7, 10, 14, 15]
Lycium chinense var. potaninii (Pojark.) A.M.Lu [ $\equiv L$	, ,
Lycium ruthenicum Murray	[16]
Lycium truncatum Y.C.Wang	[10, 12, 15, 16]
Physochlaina albiflora Grubov	[3, 4]
Physochlaina physaloides (L.) G.Don	[1, 3-9, 11-13]
Solanum kitagawae SchönbTem.	[3, 6, 9, 14]
Solanum septemlobum Bunge	[4, 8, 9, 12]
<b>104. Tamaricaceae</b> Link (3 genera and 13 taxa)	
Myricaria bracteata Royle	[1, 7, 11–14, 16]
Myricaria longifolia Ehrenb.	[2-4, 6, 7, 11]
Reaumuria soongarica Maxim.	[3, 6-16]
Tamarix arceuthoides Bunge	[10, 14, 15]
Tamarix elongata Ledeb.	[11, 14]
Tamarix gracilis Willd.	[13, 15, 16]
Tamarix hispida Willd.	[13]
Tamarix × karelinii Bunge	[10, 14–16]
Tamarix kasahorum Gorschk.	[15, 16]
Tamarix laxa Willd.	[11, 12, 15]
Tamarix leptostachya Bunge	[10, 13–16]
Tamarix ramosissima Ledeb.	[10, 12–16]
Tamarix smyrnensis Bunge	[12, 14, 16]
J	[,,]

E

SE

Viola alexandrowiana (W.Becker) Juz.

Viola altaica Ker Gawl.

<b>105.</b> Thymelaeaceae Juss. (2 genera and 3 species)	
Diarthron altaicum (ThiébBern.) Kit Tan [≡ Steller	a altaica ThiébBern.]
	[7]
Diarthron linifolium Turcz.	[2, 3, 4, 5]
Stellera chamaejasme L.	[2, 3, 4, 5, 9]
106. Tofieldiaceae Takht. (1 genus and 1 species)	
Tofieldia coccinea Richardson	[1]
<b>107. Typhaceae</b> Juss. (2 genera and 12 species)	
Sparganium emersum Rehmann	[3, 5, 6, 7, 9, 10]
Sparganium glomeratum (Laest.) Beurl.	[2, 4]
Sparganium natans L.	[7, 10]
Sparganium stoloniferum (Graebn.) BuchHam.	[1, 4, 8, 9, 10]
Typha angustifolia L.	[1, 10]
Typha domingensis Pers.	[4, 10]
Typha joannis Mavrodiev	[9]
Typha latifolia L.	[2, 5]
Typha laxmannii Lepech.	[3–6, 8, 9, 11]
Typha minima Funck	[9, 10]
Typha orientalis C.Presl	[5]
Typha tzvelevii Mavrodiev	[4]
<b>108. Ulmaceae</b> Mirb. (1 genus and 3 taxa)	
Ulmus davidiana var. japonica (Rehder) Nakai	[4, 5, 8]
Ulmus macrocarpa Hance	[2, 4, 5, 8, 9, 12]
Ulmus pumila L.	[2–5, 7–9, 11, 13, 16]
109. Urticaceae Juss. (2 genera and 4 taxa)	
Parietaria debilis G.Forst.	[2-4, 6, 9, 10]
Urtica angustifolia Fisch.	[1-5, 7, 9, 10]
Urtica cannabina L.	[2–10, 12–14]
<i>Urtica dioica</i> L. subsp. <i>sondenii</i> (Simm.) Hyl. [≡ <i>Urtica</i>	
erren moren zi odsopi termiorir (emilin) 11/11 [ erren	[7, 14]
110. Violaceae Batsch. (1 genus and 27 taxa)	
Note: Recently, Esput (2020) critically revised the gent	us Viola I in the Russian
Far East and adjacent territories. In this study, accepted	
mostly follow Esput (2020).	
Viola acuminata Ledeb.	[4, 5, 9]
1/1-1	1.4.1

[4]

[3, 7]

	Viola arvensis Murray	[4]
	Viola biflora L.	[1, 2, 3, 7]
	Viola brachyceras Turcz.	[2]
	Viola collina Besser	[5, 7]
	Viola dactyloides Schult.	[2, 3, 4, 5, 6]
	Viola disiuncta W.Becker	[7]
	Viola dissecta Ledeb.	[1-5, 7, 9, 13]
	Viola epipsiloides Á.Löve & D.Löve	[1, 2]
	Viola gmeliniana Schult.	[1, 2, 3, 4, 5]
	Viola incisa Turcz.	[2, 4]
SE	Viola ircutiana Turcz.	[2]
	Viola macroceras Bunge	[7]
	Viola mauritii Teplouchow	[1, 4, 5, 7, 9, 13]
	Viola mirabilis L.	[2, 5]
	Viola nemoralis Kuetz.	[2]
	Viola patrinii Ging.	[2, 5, 7, 9, 10, 14]
	Viola rudolfii Vl.V.Nikitin	[4, 5]
	Viola rupestris F.W.Schmidt	[2, 3, 4, 6, 7]
	Viola sacchalinensis H.Boissieu	[2, 4, 5]
	<i>Viola</i> × schauloi Vl.V.Nikitin	[2, 4]
	Viola selkirkii Pursh	[2]
	Viola tenuicornis subsp. trichosepala W.Becker	[4]
	Viola uniflora L.	[1, 2, 3, 4, 7]
	Viola variegata Fisch.	[1, 4, 5]
	111. Zygophyllaceae R.Br. (2 genera and 13 taxa)	
	Tribulus terrestris L.	[3, 5–16]
	Zygophyllum brachypterum Kar. & Kir.	[6, 10]
	Zygophyllum gobicum Maxim.	[14, 15]
	Zygophyllum kaschgaricum Boriss.	F /
	[≡ Sarcozygium kaschgaricum (Boriss.) Y.X.Liou]	[12–16]
	Zygophyllum macropterum C.A.Mey.	
	[= Zygophyllum pinnatum Cham. & Schltdl.]	[7, 14]
SE	Zygophyllum melongena Bunge	[3, 6, 7, 10, 11, 13,
		14]
SE	Zygophyllum mucronatum Maxim.	[15, 16]
E	Zygophyllum neglectum Grubov	[10, 13, 14, 16]
	Zygophyllum potaninii Maxim.	[6, 7, 12–16]
	Zygophyllum pterocarpum Bunge	[6, 7, 10–16]
	Zygophyllum rosowii var. latifolium (Schrenk) Popov	[13–16]
	Zygophyllum rosowii Bunge var. rosowii	[3, 7, 8, 10–16]
	Zygophyllum xanthoxylon (Bunge) Maxim.	[7, 8, 10–16]

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## Supplementary material I

#### Appendix 1

Authors: Baasanmunkh et al.

Data type: Checklist

Explanation note: List of new species (marked by red color) and new records to the flora of Mongolia, since Urgamal et al (2014).

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Link: https://doi.org/10.3897/phytokeys.192.79702.suppl1

# Supplementary material 2

# Appendix 2

Authors: Baasanmunkh et al.

Data type: Checklist

Explanation note: Changes of accepted names compared with Urgamal et al (2014).

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